NEEDLE / CARTRIDGE
CATALOG #NC86-87

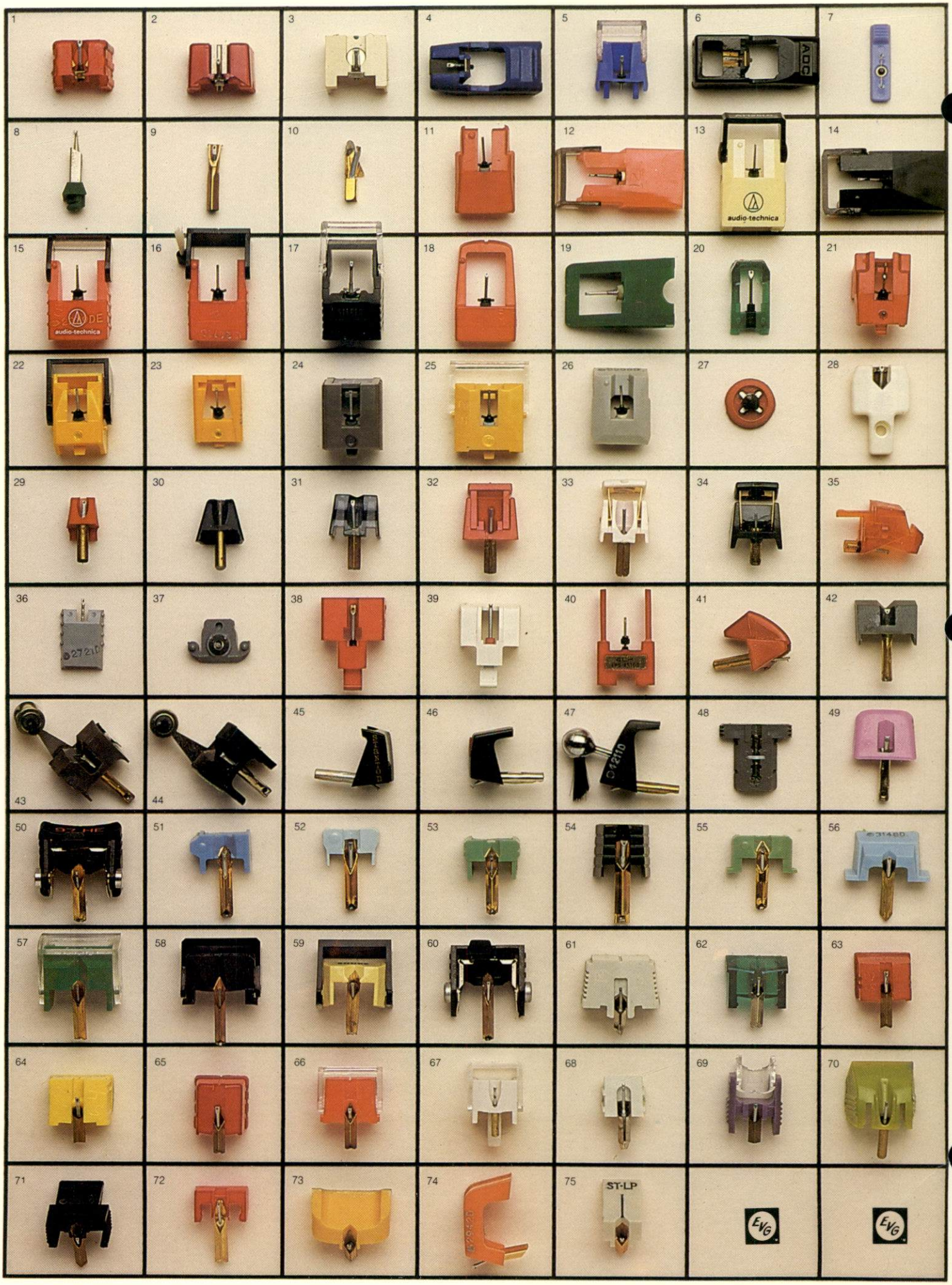
EVG, inc.

Pictorial Index (PRO-MAG) . . . . . 1 & 102
Instructions 2
Pictorial Index (Ceramic) 3
Figure Number to EVG Part Number 5
PRO-MAG Number to Figure Number 10
Manufacturer's Number to EVG Number 15
Economy Needle Cards 75
Needle NLA's to Current Numbers 77

Cartridge NLA's to Current Numbers 78
EVG Cartridge Number to Manufacturer 79
Manufacturer's Number to EVG Number 82
Cartridge Mounts, Plugs & Sockets 95
Centerposts; Automatic & Manual 96
Cartridge Heads & Head Shells 96
Adaptors 97
Tetrad, How To 98
TUK Kits 99
Merchandising Aids & Programs 100
Turntable Belts 101

Goody Store

5-8-87


1
2
3
4
5
6
ADC
7
8
9
10
11
12
13
audio-technica
14
15
audio-technica
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
ST-LP

EVG, inc.

It's a fact — a quality stylus tip makes the music.

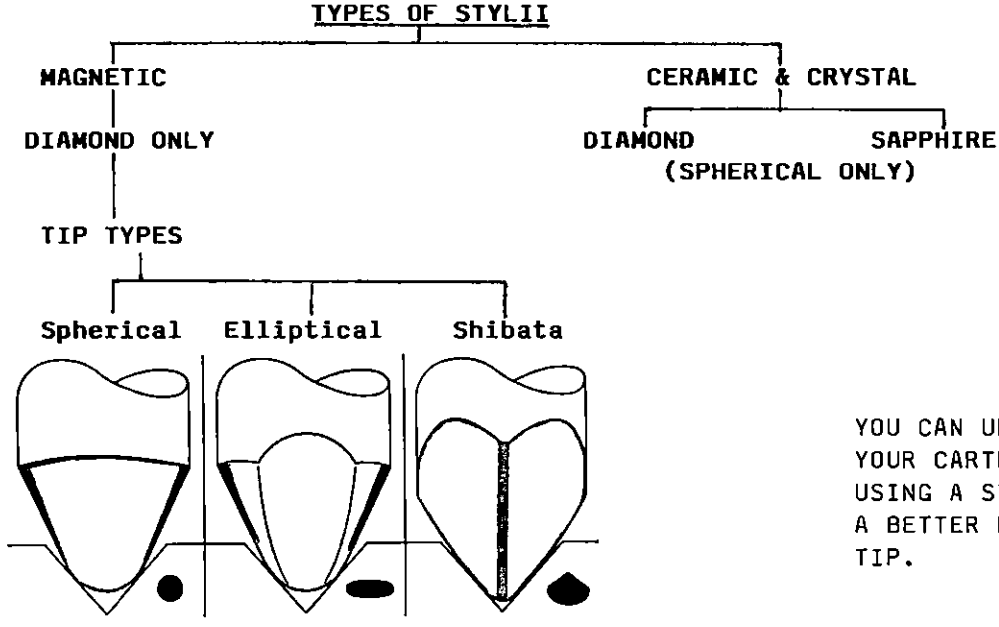
The most important part of the sound reproduction system is the stylus tip assembly. This is why we have used highest quality parts unsparingly to produce the "PRO MAG " series of needles. The four major causes of record wear by a phonograph stylus are: Stylus Force, Effective Tip Mass, Stylus Tip Shape and Stylus Tip Polish. Each of these causes has been minimized in EVG's "PRO MAG " Series of replacement needles.

TIP POLISH: Better polish means less record wear, smoother music and longer tip life. EVG takes great care to insure that each diamond stylus is ground and polished to meet our extremely fine tolerance.

TIP MASS: EVG employs low mass where it counts...at the tip and at the cantilever. We use expensive thin wall and tapered tubes made of aluminum, carbon fiber, beryllium, titanium and other light weight, space age materials. The result is greatly reduced effective tip mass.

STYLUS FORCE: The greater the tracking force, the greater the record and needle wear. EVG's replacement styli are designed to track at the recommended tracking force specified by the cartridge manufacturer.

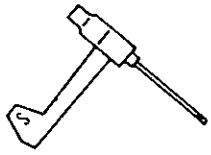
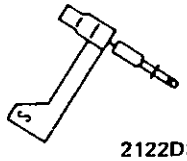
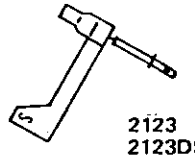
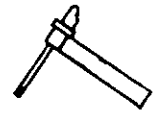
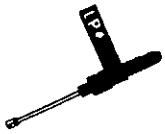
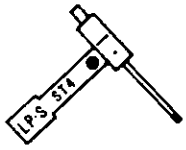
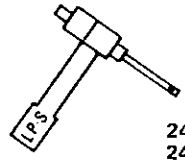
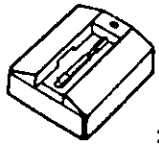
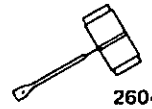
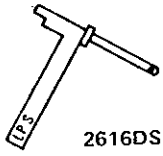
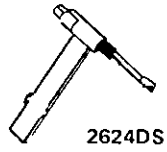
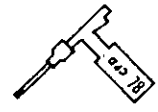
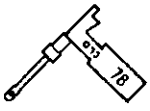
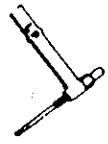
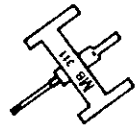
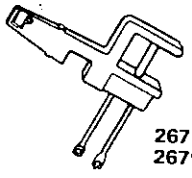
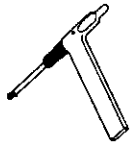
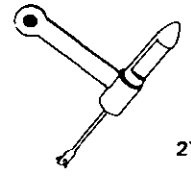
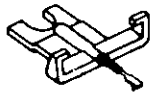
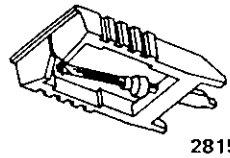
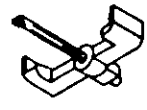
TIP SHAPE: A Shibata style tip is best for stereo or quad reproduction as its expanded contact area reduces the force and friction at the record groove. This provides a double plus: longer tip life and longer record life. An Elliptical or Biradial tip follows the undulations and contours of the record groove extremely well and is slightly more expensive than Spherical.
Spherical is the original tip developed to play back records and is still widely used today in less costlier sound systems.



YOU CAN UPGRADE YOUR YOUR CARTRIDGE BY USING A STYLUS WITH A BETTER POLISHED TIP.

PRO-MAG replacement styli are the product of EVG and are not to be deemed made by the original cartridge manufacturers except where indicated on the stylus.

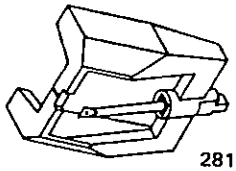
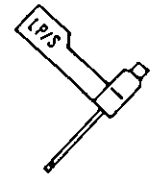
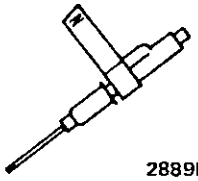
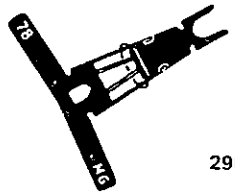
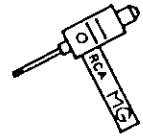
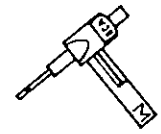
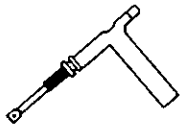
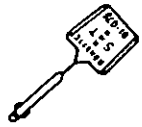
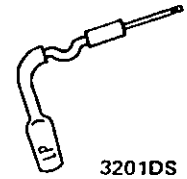
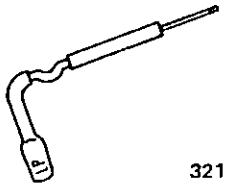
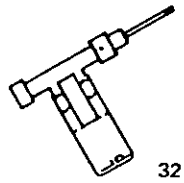
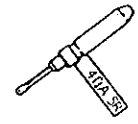
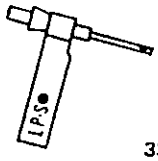
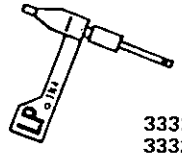
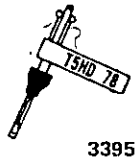
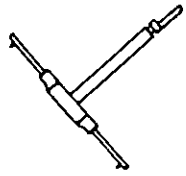
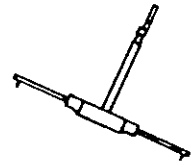
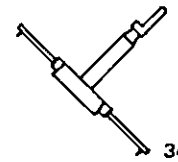
PICTORIAL INDEX
CERAMIC & CRYSTAL TYPES

 2117DS	 2122DS	 2123 2123DS	 2130DS
 2132DS	 2421DS	 2424 2424DS	2428DS
2479D	 2480D	2481D	 2604 2604D
 2616DS	2622 2622DS	 2624DS	 2625DS
 2636DS	 2644 2644DS	 2647D	2677D
 2679 2679DS	 2682DS	2733D	 2739DS
2744 2744DS	 2752 2752D	 2815D	 2816D

Hints on needle life

How long will a phonograph needle last and how will I know when it worn out? Unfortunately, when you can hear that the needle is worn (a hissing sound from the record) or see shavings on the record, it is already too late--the damage has been done. An easy way to determine needle wear is to keep track of approximate hours the needle has been in use. When gauging the length of time a needle will last, many variables must be taken into account. Things like the tone arm weight, record condition, dust in the air, whether a monaural or stereo needle is being used and tip material of the needle all contribute to needle life. If the above conditions are controlled, you may expect the following hours of play from your needle:

PICTORIAL INDEX
CERAMIC & CRYSTAL TYPES

 2817D	2824D	2829D	 2835DS
 2889DS	 2907DS	 2912 2912DS	 2915DS
 2918 2918DS	 3005D	3009 3009D	 3201DS
 3213DS	 3214DS	3224DS	 3233DS
 3330DS	 3332 3332DS	3391 3391DS	3393 3393DS
 3395 3395DS	 3452DS	 3454DS	 3456DS
3458D	3805		

TIPS MATERIAL	APPROXIMATE SAFE HOURS OF PLAY
Precious Metal	10 hours
Synthetic Sapphire (Monaural)	50 hours
Synthetic Sapphire (Stereo)	30 hours
Natural Diamond (Monaural)	800 hours
Natural Diamond (Stereo)	500 hours

FIGURE NUMBER	NEEDLE NUMBER	DESCRIPTION
1	PM2202D	ADC R-770, ETC.
2	PM2212D	ADC R-20, ETC.
3	PM2214D	ADC R-20X, ETC.
3	PM2215DE	ADC R-20XE, ETC.
4	PM2224DE	ADC RQ-32,-36,-40
4	PM2225D	ADC RK-8
4	PM2226DE	ADC RK-8E
4	PM2232D	ADC RQLM-30; MAGNAVOX
4	PM2233DE	ADC RQLM-32
4	PM2235DE	ADC RQLM-36
4	PM2237DQ	ADC RSX, ETC.
5	PM2242D	ADC RQ-3,-4
6	PM2230DE	ADC RLMA-1,-3,-6
7	PM4056D2	PICKERING 303; JUKE BOX
8	PM2401D	EMPIRE 880
9	PM2556D	ELAC
10	PM3118D	REPLACES PM3114D; SHURE M3D,-M7D
11	PM2275D	AT-10; AKAI; CEC; COLUMBIA; CROWN, HITACHI; JVC; KENWOOD; MAGNAVOX; MITSUBISHI; NEC; ONKYO; PANASONIC; SANSUI; SANYO; SHARP; SONY; TOSHIBA; YAMAHA
11	PM2276D	AT-11; SAME AS ABOVE
11	PM2277DE	AT-11E (ELLIPTICAL VERSION FOR ABOVE)
11	PM2278DE	AT-12; HITACHI; MAGNAVOX; PANASONIC
11	PM2279DE	AT-13; AKAI
11	PM2280DQ	AT-12S; QUAD UPGRADE FOR PM2275D, PM2276D, PM2277DE, PM2278DE
12	PM2284DE	AT-13EA
12	PM2285DQ	AT-14SA
13	PM2301DE	AT-120E,-130E
13	PM2302DQ	AT-125LC,-130LC,-140LC,-152LP
13	PM2303DQ	AT-155LC
13	PM2313D	AT-103
14	PM2282DQ	AT-15S; AT20SLA
14	PM2287DE	AT-15XE
15	PM2281DQ	AT-14S; JVC
16	PM2671D	EVG; MAGNAVOX
17	PM2890D	ACUTEX; AKAI; HITACHI; KENWOOD; MAGNAVOX; PHILIPS; PIEZO
17	PM2891DE	ACUTEX; EXCEL; PIEZO
18	PM2840D	SONY ND-133P
19	PM2843D	SONY ND-100G
20	PM2836D	SONY ND-120P
21	PM2294D	AT-70, MAGNAVOX; MITSUGISHI; NEC; PANASONIC; SANYO; SHARP; SONY; TOSHIBA; YAMAHA
21	PM2295D	AT-71,-72; COLUMBIA; CEC; CROWN; HITACHI; KENWOOD; MITSUBISHI; ONKYO; PANASONIC; SANSUI; TOSHIBA
21	PM2296DE	AT-71E,-72E; PANASONIC; SANYO
22	PM2299D	AT-105
22	PM2300DE	AT-110E
23	PM2304D	AT-3710; AIWA; AKAI; ONKYO; PANASONIC; SANYO; SONY
24	PM2291D	ATP-1; ATX-1
24	PM2292DE	ATP-2; ATX-3E

FIGURE NUMBER	NEEDLE NUMBER	DESCRIPTION
24	PM2293DE	ATP-3; ATX-5E
25	PM2852D	SONY ND-137G
26	PM2298D	AT-3400; AIKA; AKAI; HITACHI; JVC; KENWOOD; MAGNAVOX; MITSUBISHI; ONKYO; PANASONIC; PIONEER; SANYO; SHARP; SONY; TOSHIBA; YAMAHA
27	PM2410D	PERPETUUM-EBNER PE-9000,-SR-07; B & O DUAL
28	PM2400D	EMPIRE 88,-108
29	PM2403D	EMPIRE 888
30	PM2407DE	EMPIRE 888E
30	PM2415D	EMPIRE 808,-80
31	PM2376DE	EMPIRE 66PE/X; PRIVATE LABEL SERIES
31	PM2389DE	EMPIRE 66E/X; PRIVATE LABEL SERIES
31	PM2390D	EMPIRE 66/X
32/31	PM2383DQ	EMPIRE 4000D
32/31	PM2384D	EMPIRE 2000
32/31	PM2385DE	EMPIRE 2000E
32/31	PM2388DE	EMPIRE 2000E/II
33	PM2380DE	EMPIRE 2000Z
34	PM2392D	EMPIRE 909/X,-999X; ONKYO
34	PM2395DE	EMPIRE 909/X,-90EE/X,-999PE/X
34	PM2399DE	EMPIRE 999SE/X,-999TE/X,-999VE/X,-1000ZE/X
35	PM2418DE	EMPIRE 100S,-200E
35	PM2419DE	EMPIRE 300ME
35	PM2420DE	EMPIRE 400TC,-480LT,-580LT,-600,-1000,-1080
36	PM2721D	GRADO BCR/X,-BTR/S
37	PM2720D	GRADO FCR/X,-BTR/S
37	PM2723DE	GRADO FCE/S,-FTE/S
38	PM2650D	EVG; SONY
39	PM2827D	MAGNAVOX 560435-1; PANASONIC
40	PM2818DQ	PANASONIC EPS-46
40	PM2018D	PANASONIC
41	PM4011D	PICKERING 38,39,380 SERIES
42	PM4000DE	PICKERING V-15/AME2,-ATE2
42	PM4006D	PICKERING V-15/AM2,-AT2,-PAT
42	PM4007D	PICKERING V-15/AC2,-P/AC
42	PM4044DE	PICKERING P/ATE
43	PM4025DE	PICKERING V-15/ATE-3,-AME-3
43	PM4027D	PICKERING V-15/AT-3,-AM-3
43	PM4028DE	PICKERING V-15/ACE-3
43	PM4029D	PICKERING V-15/AC-3
44	PM4036DE	PICKERING XV-15,-V-15 MICRO IV
44	PM4037DE	PICKERING XV-15,-V-15 MICRO & PHASE IV
44	PM4038D	PICKERING XV-15, MICRO & PHASE IV
44	PM4039D	PICKERING XV-15, MICRO & PHASE IV
44	PM4052DE	PICKERING XV-15/1200,-750E
44	PM4055DQ	PICKERING UV-15/2400Q,-4500Q,-5000
45	PM4219D	STANTON 600AX
46	PM4202D	STANTON 500AA
46	PM4204DE	STANTON 500EE
47	PM4211D	STANTON 681A

FIGURE NUMBER	NEEDLE NUMBER	DESCRIPTION
47	PM4212DE	STANTON D6800EE,-D6800SE,-681EE
47	PM4216DE	STANTON 681EEE
47	PM4217DQ	STANTON 681EEE (S)
48	PM4057D2	PICKERING 313; JUKE BOX
49	PM4058D2	PICKERING 340D JUKE BOX
49	PM4058S2	PICKERING JUKE BOX
49	PM4059DS2	JUKE BOX
50	PM3167D	SHURE M97B
50	PM3168DE	SHURE M97EJ
50	PM3169DE	SHURE M97ED
50	PM3170DQ	SHURE M97HE
51	PM3117D	DUAL; SHURE M44
51	PM3123D	SHURE M44MC
51	PM3124DE	SHURE M44E
51	PM3125DE	SHURE M55E
52	PM3128D	SHURE M75; AKAI; DUAL; SANYO; YAMAHA
52	PM3127DE	SHURE M75E,-M753II,V15II
52	PM3143D	SHURE M71C,-M75C,-M81C
52	PM3144DE	SHURE M75ED,-M75EJ,-M81EC
52	PM3163D	SHURE M74CS
53	PM3136DE	SHURE M91E; AKAI; DUAL; SANYO; -M91ED
53	PM3139DE	SHURE N93E
54	PM3115D	SHURE M33,-M77,-M99; JUKE BOX
55	PM3157DE	SHURE M70-EJ,-M72EJ
55	PM3158D	SHURE N70B,-N72B
56	PM3148D	SHURE SS35C
57	PM3164DE	SHURE SPS-1,-2; SHARP; TOSHIBA
57	PM3165DE	SHURE SPS-3,-4
57	PM3166DQ	SHURE SPS-5
58	PM3145D	SHURE V15-IIIG
58	PM3146DE	SHURE V15-III;DUAL; YAMAHA
59	PM3155DE	SHURE M95ED,-M95G, AIWA; DUAL;
59	PM3156DE	SHURE M953J
60	PM3160DE	SHURE V15-IV
60	PM3161D	SHURE V15-IV-G
60	PM3162DQ	SHURE V15-IV
61	PM2834D	AT-6; CEC; DENON; HITACHI; JVC; KENWOOD; NAGAOKA; NIPPON; ONKYO; PIEZO; PIONEER; SANSUI; SONY; TOSHIBA; YAMAHA
62	PM2823D	PANASONIC EPS-52
63	PM2844D	SONY ND-114,-115,-117
64	PM2848D	AT-66; CEC; DENON; NAGAOKA; ONKYO; SANSUI; SHARP; TOSHIBA; YAMAHA
65	PM2305D	AT-55; SANSUI; SANYO; SONY; TOSHIBA; YAMAHA
65	PM2472D	AT-4; COLUMBIA; KENWOOD; ONKYO; SONY
66	PM3079D	SONY ND-14G
67	PM3022D	ORTOFON N-15
67	PM3023DE	CEC; ORTOFON N-15E
67	PM3024DE	DUAL; ORTOFON N-1511
67	PM3025DE	ORTOFON N-15E/II
68	PM2861D	PIONEER PL-N9

FIGURE NUMBER	NEEDLE NUMBER	DESCRIPTION
69	PM2864D	PIONEER PN-30,-50
70	PM2924D	JVC DT-33G; HITACHI
71	PM2560D	ELAC
73	PM2863D	PIONEER PN-35
74	PM2942D	JELCO ND-15D; KENWOOD
75	PM3060D	SANSUI SN-31
76	PM2853D	AUE; PANASONIC; EPS-37; SONY ND-60G
77	PM2304D	AT-750; CEC; COLUMBIA; SANYO; YAMAHA
78	PM2307D	AT-936; ONKYO; SONY; YAMAHA
79	PM2308D	AT-952; KENWOOD; MITSUBISHI; ONKEN; ONKYO; SANSUI; SANYO
80	PM2854D	AUE; HITACHI; MAGNAVOX; PANASONIC EPS-41; SANYO
81	PM2309DE	AT-102,-112; AKAI; HITACHI
81	PM2311DE	AT-122EP-132EP,-152EP
82	PM2314DE	AT-51,-51E,-52E,-53,-55XG,-57XE,-59XE
83	PM2315D) PM2321DE)	AT-3472EP; AKAI; HITACHI; JVC; PANASONIC; PIONEER; SANSUI; SHARP; SONY
84	PM3112D	SANSUI; SANYO/FISHER; TOSHIBA
85	PM2239DE	ADC RML-1
86	PM2775D	HITACHI DS-ST40; ONKYO; SHARP; SONY; TOSHIBA
87	PM2855DE	PANASONIC EPS-23,-25,-28C
88	PM2865D	SONY ND250G,-150G,-200G
89	PM2866D	SONY ND-70X
90	PM2867D	SONY ND-15G
91	PM2868D	TOSHIBA N-62,-64,-66
92	PM2869D	PIONEER PN-12,-110,-150
93	PM2870D	AIWA; PIONEER PN-K65
94	PM2871D	PIONEER PN-200,-400,-600,-800
95	PM2943DE	JVC DT-37
96	PM3026DE	MITSUBISHI; ORTOFON LM-20
97	PM3061D	SANYO ST-28D
97	PM3077DE	SHARP STY-121
98	PM3078D	SHARP STY-116; TOSHIBA N-160
99	PM3088D	SANSUI SN-10
100	PM3088D	KENWOOD N-23; MASTERCRAFT; SANSUI; SANYO ST-5D
101	PM3099D	CEC MC-5A; ONKYO; SANSUI; SN-26; SANYO
102	PM3091D	SANSUI SN-27
103	PM3092D	SANSUI SN-28,-37; SHARP STY-104,-114
104	PM3093D	MITSUBISHI 3D-38M; SANSUI SN-36,-42; TOSHIBA N-220M
105	PM3094D	SANSUI SN-80
106	PM3095D	HITACHI CN-104; SANYO ST-9G,-G10
107	PM3096D	CEC; COLUMBIA (DENON); JVC DT-36; SANYO ST-34D,-G8
108	PM3097D	AT-892; SANYO ST-38D
109	PM3098D	SANYO ST-44D
110	PM3099D	SANYO ST-107D,-48D
111	PM3100DE	SANYO ST-100D
112	PM3101D	HITACHI; MITSUBISHI; SANSUI; SANYO; SHARP
113	PM2000D	TENOREL N2001D
114	PM2312D) PM2322DE)	AT-3600, AT3651E DUAL, JVC, PANASONIC, PIONEER, SANYO, SHARP, SONY, YAMAHA
115	PM2872D	PIONEER PN-135, -155

FIGURE NUMBER	NEEDLE NUMBER	DESCRIPTION
116	PM2240DE	ADC RPSX-10,20
116	PM2241DE	ADC RPSX-30,-40
117	PM2945D	JVC DT-41
118	PM3102D	KENWOOD; SANYO; TOSHIBA
119	PM3103D	SANUI SN-505
120	PM3171D	SHURE N92,-94LT,-96LT (P-MOUNT)
120	PM3172DE	SHURE N97LT (P-MOUNT)
121	PM2483D	EMPIRE SC-1; DENON
121	PM2484DE	EMPIRE SE-1
122	PM3116D	KENWOOD V-43,-44; MGA; SANYO; SHARP
123	PM2945D	JVC DT-41
124	PM2485D	EMPIRE 190LT
124	PM2486DE	EMPIRE 290LT,-390LT
125	PM2887D	MAGNAVOX; PHILIPS
126	PM2939D	KENWOOD N-39III
127	PM2822D	PANASONIC EPS-28,-45
128	PM3027DE	ORTOFON/DUAL DN-150E
129	PM4022D	PICKERING DLC; STANTON D-71EE
129	PM4023D	PICKERING DLC; STANTON D-71EE
130	PM3173D	SHURE N92 (P-MOUNT)
130	PM3174DE	SHURE N92E,-99E,-104E,-110HE
131	PM3175DE	SHURE N105E
132	PM3176DQ	SHURE N120HE,-140HE
133	PM3177DE	SHURE DESIGNER SERIES ED,-EJ,-HE
134	PM2878D	SONY ND200G,-E
135	PM2879D	SONY ND220G
136	PM2881D	SONY ND-50
137	PM2979D	SONY ND-143G
138	PM3204D	SANYO ST-14D; SHARP; TOSHIBA
139	PM3208D	SANYO ST-25D
139	PM3209DE	SANYO ST-31J
140	PM2873D	PIONEER PN-290T
141	PM3199D	SANYO ST-66
142	PM3203D	SANYO ST-37D
143	PM3210D	SANYO ST-102SD
144	PM2317D	AT-3851; AIWA; AKAI; KENWOOD; MITSUBISHI; SANSUI; TOSHIBA
145	PM2318D	AT-3830; AIWA; DENON; HITACHI; JVC; MITSUBISHI; ONKYO; SHARP
146	PM2316DE	AT-201EP
147	PM2938D	KENWOOD N-59; TOSHIBA
148	PM3104D	SANSUI SN-707
149	PM3064D	SHARP STY-127
150	PM2319D	AT-3100; -3200; KENWOOD; SONY; TOSHIBA; YAMAHA
150	PM2320DE	AT-3100E, -XE; -3200E, -XE; HITACHI; JVC

PRO MAG #	DESCRIPTION	FIGURE #
PM2000D	Tenorel N2001 D	113
PM2018D	Panasonic	40
PM2202D	ADC R-770, etc.	1
PM2212D	ADC R-20, etc.	2
PM2214D	ADC R-20X, etc.	3
PM2215DE	ADC R-20XE, etc.	3
PM2224DE	ADC RQ-32, -36, -40	4
PM2225D	ADC RK-8	4
PM2226DE	ADC RK-8E	4
PM2227DE	ADC RK-3E, -5E	4
PM2230DE	ADC RLMA-1, -3, -6	6
PM2232D	ADC RQLM-30; Magnavox	4
PM2233DE	ADC RQLM-32	4
PM2235DE	ADC RQLM-36	4
PM2237DQ	ADC RSX, etc.	4
PM2239DE	ADC RML-1	85
PM2240DE	ADC RPSX-10, -20	116
PM2241DE	ADC RPSX-30, -40	116
PM2242D	ADC RQ-3, -4	5
PM2275D	AT-10; Akai; CEC; Columbia; Crown; Hitachi; JVC; Kenwood; Magnavox; Mitsubishi; NEC; Onkyo; Panasonic;Sansui; Sanyo;Sharp;Sony; Toshiba; Yamaha	11
PM2276D	AT-11; same as above	11
PM2277DE	AT-11E (Elliptical version of above)	11
PM2278DE	AT-12; Hitachi; Magnavox; Panasonic	11
PM2279DE	AT-13; Akai	11
PM2280DQ	AT-12S; Quad upgrade for PM2275D, PM2276D, PM2277DE, PM2278DE	11
PM2281DQ	AT-14S; JVC	15
PM2282DQ	AT-15S; AT20SLA	14
PM2284DE	AT-13EA	12
PM2285DQ	AT-14SA	12
PM2287DE	AT-15XE	14
PM2291D	ATP-1; ATX-1	24
PM2292DE	ATP-2; ATX-3E	24
PM2293DE	ATP-3; ATX-5E	24
PM2294D	AT-70; Magnavox; Mitsubishi; NEC; Panasonic; Sanyo; Sharp; Sony; Toshiba; Yamaha	21
PM2295D	AT-71, -72; Columbia; CEC; Crown; Hitachi; Kenwood; Mitsubishi; Onkyo; Panasonic; Sansui; Toshiba	21
PM2296DE	AT-71E, -72E; Panasonic; Sanyo	21
PM2298D	AT-3400; Aiwa; Akai; Hitachi; JVC; Kenwood; Mitsubishi; Onkyo; Panasonic; Pioneer; Sanyo; Sharp; Sony: Toshiba; Yamaha; Magnavox	26
PM2299D	AT-105	22
PM2300DE	AT-110E	22
PM2301DE	AT-120E, -130E	13
PM2302DQ	AT-125LC, -140LC, -152LP, -130LC	13
PM2303DQ	AT-155LC	13
PM2304D	AT-3710; Aiwa; Akai; Onkyo; Panasonic; Sanyo; Sony	23
PM2305D	AT-55; Sansui; Sanyo; Sony; Toshiba; Yamaha	65

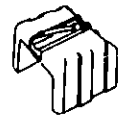
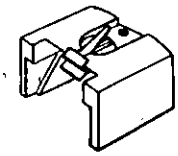
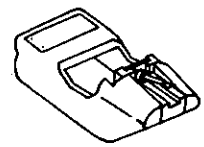
PRO MAG #	DESCRIPTION	FIGURE #
PM2306D	AT-750; CEC; Columbia; Sanyo; Yamaha	77
PM2307D	AT-936; Onkyo; Sony; Yamaha	78
PM2308D	AT-952; Kenwood; Mitsubishi; Onken; Onkyo; Sansui; Sanyo	79
PM2309DE	AT-102, -112; Akai; Hitachi	81
PM2311DE	AT-122EP -132EP, -152EP	81
PM2312D	AT-3600; Dual; JVC; Panasonic; Pioneer; Sanyo; Sharp; Sony; Yamaha	114
PM2313D	AT-103	13
PM2314DE	AT-51, -51E, -52E, -53, -55XG, -57XE, -59XE	82
PM2315D	AT-3472; Akai; Hitachi; JVC; Panasonic; Pioneer; Sansui; Sharp; Sony	83
PM2316DE	AT-201EP	146
PM2317D	AT-3851; Aiwa; Akai; Kenwood; Mitsubishi; Sansui; Toshiba	144
PM2318D	AT-3830; Aiwa; Denon; Hitachi; JVC; Mitsubishi; Onkyo; Sharp	145
PM2319D	AT-3100; Kenwood, Toshiba, Sansui, Sony, Yamaha	150
PM2320DE	AT-3100E,-XE, Hitachi, JVC	150
PM2321DE	AT-3472EP, JVC	83
PM2322DE	AT-3651E	114
PM2380DE	Empire 2000Z	33
PM2383DQ	Empire 4000D	31/32
PM2384D	Empire 2000	31/32
PM2385DE	Empire 2000E	31/32
PM2388DE	Empire 2000E/11	31/32
PM2389DE	Empire 66E/X; Private Label Series	31
PM2390D	Empire 66/X	31
PM2392D	Empire 909/X, -999X; Onkyo	34
PM2395DE	Empire 909/X, -90EE/X, -999PE/X	34
PM2399DE	Empire 999SE/X, -999TE/X, -999VE/X, -1000ZE/X	34
PM2400D	Empire 88, -108	28
PM2401D	Empire 880	8
PM2403D	Empire 888	29
PM2407DE	Empire 888E	30
PM2410D	Perpetuum-Ebner PE-9000, -SR-07; B & O; Dual	27
PM2415D	Empire 808, -80	30
PM2418DE	Empire 100S, -200E	35
PM2419DE	Empire 300ME	35
PM2420DE	Empire 400TC, -480LT, -580LT, -600, -1000, -1080	35
PM2472D	AT-4; Columbia; Kenwood; Onkyo; Sony	65
PM2483D	Empire SC-1; Denon	121
PM2484DE	Empire SE-1	121
PM2485D	Empire 190LT	124
PM2486DE	Empire 290LT, -390LT	124
PM2556D	Elac	9
PM2560D	Elac	71
PM2650D	EVG; Sony	38
PM2671D	EVG; Magnavox	16
PM2721D	Grado BCR/S, -BTR/S	36
PM2723DE	Grado FCE/X, -FTE/S	37
PM2775D	Hitachi DS-ST40; Onkyo; Sharp; Sony; Toshiba	86
PM2818DQ	Panasonic EPS-46	40

PRO MAG #	DESCRIPTION	FIGURE #
PM2822D	Panasonic EPS-28, -45	127
PM2823D	Panasonic EPS-52	62
PM2827D	Magnavox 560435-1; Panasonic	39
PM2834D	AT-6 CEC; Denon; Hitachi; JVC; Kenwood; Nagaoka; Nippon; Onykyo; Piezo; Pioneer; Sansui; Sony; Sanyo; Toshiba; Yamaha	61
PM2836D	Sony ND-120P	20
PM2840D	Sony ND-133G	18
PM2843D	Sony ND-100G	19
PM2844D	Sony ND-114, -115, -117	63
PM2848D	AT; CEC; Denon; Nagaoka; Onkyo; Sansui; Sharp; Toshiba; Yamaha	64
PM2852D	Sony ND-137G	25
PM2853D	AUE; Panasonic EPS-37; Sony ND-60G	76
PM2854D	AUE; Hitachi; Magnavox; Panasonic EPS-41; Sanyo	80
PM2855DE	Panasonic EPS-23, -25 -28C	87
PM2861D	Pioneer PL-N9	68
PM2863D	Pioneer PN-35	73
PM2864D	Pioneer PN-30, -50	69
PM2865D	Sony ND250G, -150G, -200G	88
PM2866D	Sony ND-70X	89
PM2867D	Sony ND-15G	90
PM2868D	Toshiba N-62, -64, -66	91
PM2869D	Pioneer PN-12, -110, -150	92
PM2870D	Aiwa; Pioneer PN-K65	93
PM2871D	Pioneer PN-200, -400, -600, -800	94
PM2872D	Pioneer PN-135, -155	115
PM2873D	Pioneer PN-290T	140
PM2878D	Sony ND200G, -E	134
PM2879D	Sony ND220G	135
PM2881D	Sony ND-50	136
PM2887D	Magnavox; Philips	125
PM2890D	Acutex; Akai; Hitachi; Kenwood; Magnavox; Philips; Piezo	17
PM2891DE	Acutex; Excel; Piezo	17
PM2924D	JVC DT-33G; Hitachi	70
PM2938D	Kenwood N-59; Toshiba	147
PM2939D	Kenwood N-39111	126
PM2942D	Jelco ND-15D; Kenwood	74
PM2943DE	JVC DT-37	95
PM2944D	JVC DT-25H; Mitsubishi	117
PM2945D	JVC DT-41	123
PM2979D	Sony ND-143G	137
PM3022D	Ortofon N-15	67
PM3023DE	CEC; Ortofon N-15E	67
PM3024DE	Dual; Ortofon N-15II	67
PM3025DE	Ortofon N-15E/II	67
PM3026DE	Mitsubishi; Ortofon LM-20	96
PM3027DE	Ortofon/Dual DN-150E	128

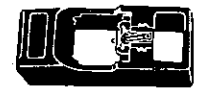
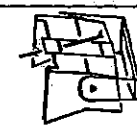
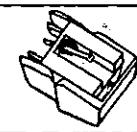
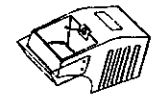
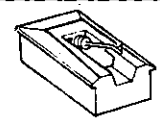
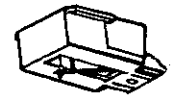
PRO MAG #	DESCRIPTION	FIGURE #
PM3060D	Sansui SN-31	75
PM3061D	Sanyo ST-28D	72
PM3064D	Sharp STY-127	149
PM3077DE	Sharp STY-121	97
PM3078D	Sharp STY-116; Toshiba N-160	98
PM3079D	Sony ND-14G	66
PM3088D	Sansui SN-10	99
PM3089D	Kenwood N-23; Mastercraft; Sansui; Sanyo ST-5D	100
PM3090D	CEC MC-5A; Onkyo; Sansui SN-26; Sanyo	101
PM3091D	Sansui SN-27	102
PM3092D	Sansui SN-28, -37; Sharp STY-104, -114	103
PM3093D	Mitsubishi 3D-38M; Sansui SN-36, -42; Toshiba N-220M	104
PM3094D	Sansui SN-80	105
PM3095D	Hitachi CN-104; Sanyo ST-G9, -G10	106
PM3096D	CEC; Columbia (Denon); JVC DT-36; Sanyo ST-34D, -G8	107
PM3097D	AT-892; Sanyo ST-38D	108
PM3098D	Sanyo ST-44D	109
PM3099D	Sanyo ST-107D, -48D	110
PM3100DE	Sanyo ST-100D	111
PM3101D	Hitachi; Mitsubishi, Sansui; Sanyo; Sharp	112
PM3102D	Kenwood; Sanyo; Toshiba	118
PM3103D	Sansui SN-505	119
PM3104D	Sansui SN-707	148
PM3112D	Sansui; Sanyo/Fisher; Toshiba	84
PM3115D	Shure M33, -M77, -M99; Juke Box	54
PM3116D	Kenwood V-43, -44; MGA; Sanyo; Sharp	122
PM3117D	Dual; Shure M44	51
PM3118D	Replaces PM3114D; Shure M3D, -M7D	10
PM3123D	Shure M44MC	51
PM3124DE	Shure M44E	51
PM3125DE	Shure M55E	51
PM3127DE	Shure M75E, -M75EII, V15II	52
PM3128D	Akai, Dual; Sanyo SH-91GD; Shure M75; Yamaha	52
PM3136DE	Akai; Dual; Sanyo; Shure M91E, -M91ED	53
PM3139DE	Shure N93E	53
PM3143D	Shure M71C, -M75C, -M81C	52
PM3144DE	Shure M75EC, -M75EJ, -M81EC	52
PM3145D	Shure V15-IIIG	58
PM3146DE	Dual; Shure V15-III; Yamaha	58
PM3148D	Shure SS35C	56
PM3155DE	Aiwa; Dual; Shure M95ED, -M95G	59
PM3156DE	Shure M95EJ	59
PM3157DE	Shure M70-EJ, -M72EJ	55
PM3158D	Shure N70B, -N72B	55
PM3160DE	Shure V15-IV	60
PM3161D	Shure V15-IV-G	60
PM3162DQ	Shure V15-IV	60
PM3163D	Shure M74CS	52
PM3164DE	Shure SPS-1, -2; Sharp; Toshiba	57
PM3165DE	Shure SPS-3, -4	57

PRO MAG #	DESCRIPTION	FIGURE #
PM3166DQ	Shure SPS-5	57
PM3167D	Shure M97B	50
PM3168DE	Shure M97EJ	50
PM3169DE	Shure M97ED	50
PM3170DQ	Shure M97HE	50
PM3171D	Shure N92, -94LT, -96LT (P-Mount)	120
PM3172DE	Shure N97LT (P-Mount)	120
PM3173D	Shure N92 (P-Mount)	130
PM3174DE	Shure N92E, -99E, -104E, -110HE	130
PM3175DE	Shure N105E	131
PM3176DQ	Shure N120HE, -140HE	132
PM3177DE	Shure Designer Series ED, -EJ, -HE	133
PM3199D	Sanyo ST-66	141
PM3203D	Sanyo ST-37D	142
PM3204D	Sanyo ST-14D; Sharp; Toshiba	138
PM3208D	Sanyo ST-25D	139
PM3209DE	Sanyo ST-31J	139
PM3210D	Sanyo ST-102SD	143
PM4000DE	Pickering V-15/AME2, -ATE2	42
PM4006D	Dual; Pickering V-15/AM2, -AT2, -P/AT	42
PM4007D	Dual; Pickering V-15/AC2, -P/AC	42
PM4011D	Pickering 38, 39, 380 Series	41
PM4022D	Pickering DLC; Stanton D-71EE	129
PM4023DE	Pickering DLC; Stanton D-71EE	129
PM4025DE	Pickering V-15/ATE-3, AME-3	43
PM4027D	Pickering V-15/AT-3, -AM-3	43
PM4028DE	Pickering V-15/ACE-3	43
PM4029D	Pickering V-15/AC-3	43
PM4036DE	Pickering XV-15, -V-15 Micro 1V	44
PM4037DE	Pickering XV-15, -V15 Micro & Phase 1V	44
PM4038D	Pickering XV-15, Micro & Phase 1V	44
PM4039D	Pickering XV-15, Micro & Phase 1V	44
PM4044DE	Pickering P/ATE	42
PM4052DE	Pickering XV-15/1200, -750E	44
PM4055DQ	Pickering UV-15/2400Q, -4500Q, -5000	44
PM4056D2	Pickering 303; Juke Box	7
PM4057D2	Pickering 313; Juke Box	48
PM4058D2	Pickering 340D; Juke Box	49
PM4058S2	Juke Box	49
PM4059DS2	Juke Box	49
PM4202D	Stanton 500AA	46
PM4204DE	Stanton 500EE	46
PM4208DE	Stanton 600EE	45
PM4211D	Stanton 681A	47
PM4212DE	Stanton D6800EE, -D6800SE, -681EE	47
PM4216DE	Stanton 681EEE	47
PM4217DQ	Stanton 681EEE(S)	47
PM4219D	Stanton 600AX	45

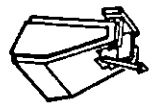
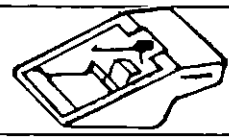
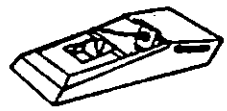
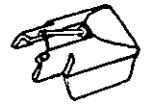
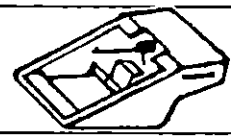
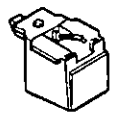
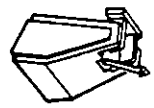
FOR ADC CARTRIDGES

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
PT.4; PT.4/E; Point 4; 650; 660/E; 770; 809/E	R-770; R.-4; R-.4E; R-8E; R-660; R-660E	red	PM2202D ●	 #1
10/E; 10/E MKII; 220; 220/E; 550E; 990/E	R-20; R-5E; R-9E; R-12E; R-20E	red	PM2212D ●	#2
220X; 90X	R-20X; R-90X	tan	PM2214D ●	
220XE; 230XE; 240XE; 250XE; 550XE; 660XE; 990XE; 10E-MK IV; 25	R-20XE; R-30XE; R-40XE; R-50XE; R-60XE; R-90XE; R-251; R-252; R-253; R-15E; R-26; R-27	black; tan	PM2215DE ⬬	 #3
Q32; Q36	RQ32; RQ36; RQ40	lt. blue	PM2224DE ⬬	
K8; P30; Q30	RK8; RK9; RP30 RQ30	dk. blue; lt. blue	PM2225D ●	
K8E; K7E; K6E; P6; P32	RK8E; RK7E; RK6E; RP32; RP36	dk. blue; lt. blue	PM2226DE ⬬	
K3E; K5E	RK3E; RK5E	dk. blue	PM2227DE ⬬	
QLM30; QLM30MKII; QLM30MKIII; QLM33MKIII	RSQ30; RQLM30; RSQ33	black; gray	PM2232D ●	
QLM32MKIII; QLM32	RSQ32; RQLM32	black; gray	PM2233DE ⬬	
QLM34MKIII; QLM36MKII; QLM36MKIII; INTEGRA XLMI; STXLMI	RSQ34; RSQ36; RQLM36; RXMI	black; gray	PM2235DE ⬬ may have needle guard	
VLM; XLM; XLMMKII; XLMMKIII; STXLMIII; Super XLM; STXLMII; INTEGRA XLMII; ZLM; INTEGRA XLMIII	RSX; RSZ; RZL; RVL; RXL; RXMII; 2000-1 RXMIII	black; gray	PM2237DQ ◆ may have needle guard	#4

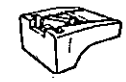
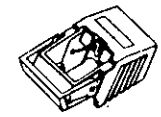
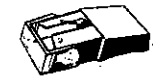
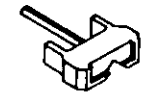
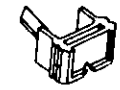
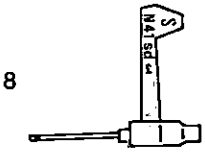
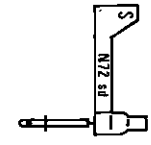
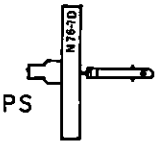
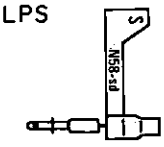
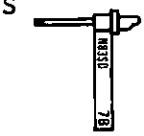
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR ADC CARTRIDGES (CONT'D)				
LMA-1; LMA-3; LMA-6	RLMA-1; RLMA-3; RLMA-6	black; dk. gray	PM2230DE ●	 #6
PSX-20; PSX-10	RPSX-20; RPSX-10	red; blue	PM2240DE ●	
PSX-40; PSX-30	RPSX-40; RPSX-30	smoke; white	PM2241DE ●	#116
ML-1	RML-1	black	PM2239DE ●	 #85
Q-3, Q-4	RQ-3, RQ-4	blue; red	PM2242D ●	 #5
FOR ACUTEX CARTRIDGES (PIEZO)				
M306II	306/II	white; yellow	PM2890D ●	
M320III STR; M307IIE; M310IIE; M312III STR; M315III STR;	307/II; 310/II; 312/III; 315/III; 320/III	black; red; yellow; blue; gray	PM2891DE ●	#17
FOR AIWA CARTRIDGES				
M-95ED	N95ED	yellow	PM3155DE ●	#59
	AN-5; 84-118-963-01	red; gray	PM2298D ●	 #26
	AN-D7	yellow	PM2304D ●	#23
	AN-50	black	PM2318D ●	 #145

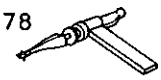
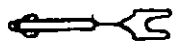
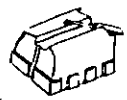
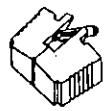
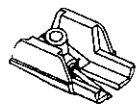
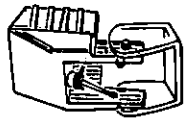
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR AIWA CARTRIDGES (CONT'D)				
APD-60	AN-60	blue	PM3203D	 #142
	AN-70	black	PM2317D	 #144
	AN-110	black	PM3210D	 #143
FOR AKAI CARTRIDGES				
APC-2; APC-5	APN-2; APN-5	lt. gray; yellow	PM2276D	
APC-4	APN-4	brown; ivory	PM2280DQ	 #11
PC-7	RS-7	black; gray	PM2309DE	#81
PC-10 PC-33 PC-35	RS-10 RS-33 RS-35	black; white; ivory	PM2315D	#83
PC-77	RS-77	black	PM2317D	 #144
PC-83; PC-85	RS-83; RS-85	yellow; black; brown	PM2298D	#26
PC-82	RS-82	red; green	PM2312D	 #114
PC-84	RS-84	red; blue	PM3203D	 #142

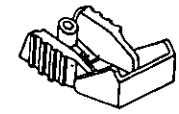
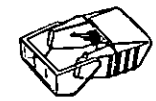
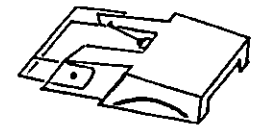
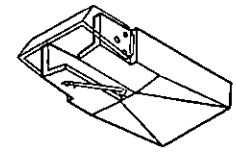
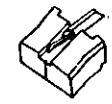
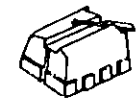
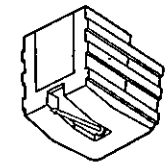
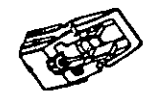
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR AKAI CARTRIDGES (CONT'D)				
PC-90 PC-95	RS-90 RS-95	yellow; black; green	PM2304D	 #23
PC-100	RS-100	black; yellow	PM2890D	 #17
PC-150E	RS-150E	black; brown	PM2278DE	#15
PC-180	RS-180	black; burgandy	PM2284DE	 #12
M-75B/II	N75B/II	black; dk. gray	PM3128D	 #52
M-91ED	N91ED	black; dk. gray	PM3136DE	 #53
FOR ASTATIC CARTRIDGES				
SERIES 17;135; 217;GE EA97X155	SERIES 41; 42;44		2117DS D-LPS/S-78	
SERIES 133;137; 138;139;140;142; 146;148;192;217; 233;237;253;346; 348;459;483;485; 496;497;602.	SERIES N50;N51;N60; N62;N63;N68;N70;N72; N76.		2123 S-LPS/S-LPS 2123DS D-LPS/S-LPS 2127D D-LPS	 
SERIES 153;155; 157;257;341;343; 345;461;465;479; 481;499.	SERIES N56;N58		2122DS D-LPS/S-LPS	
SERIES 163;165; 271;273;275;349; 351;353;355;613; 665.	SERIES N64;N66; N74;N83;N84.		2130DS D-LPS/S-LPS	

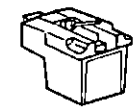
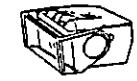
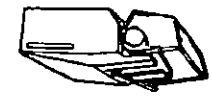
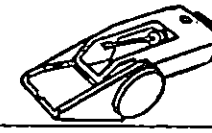
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR ASTATIC CARTRIDGES (CONT'D)				
215 &D WURLITZER#133352	N14 &SD		2132DS	D-LPS/S-LPS
SERIES 201;205; 209;211.	SERIES N89; N93		2135DS	D-LPS/S-78 
SERIES 118;120; 124;310;312;414; 416;420;422;424;	SERIES N8-1;N8-3; N7-7;N8-7		3009 3009D	S-LPS D-LPS 
426;609;	NEEDLES ARE IDENTICAL.70TS;74TS;76TS&TB;80TS;86TS&TB			
FOR AUDIO TECHNICA CARTRIDGES				
AT-4	AT4-7D	orange; brown;green; gray; red	PM2472D ●	 #65
AT-6	AT6-5D; AT6-7D	white;red; gray; black; ivory	PM2834D ●	 #61
AT-VM8; AT-VM8U; AT-10	ATS-10; VM8-7D ATS-10L; ATS-12C	red; ivory; gray; brown	PM2275D ●	
AT-11	ATS-11	yellow; brown	PM2276D ●	
AT-11E; AT-90E; AT-1100E; PRO-11E	ATS-11E	green; purple	PM2277DE ⬬	
AT-12E; PRO-12E	ATS-12	blue;gray; ivory	PM2278DE ⬬	
AT-12S; AT-12SA; AT-12XE; AT-1200SA; AT-1200XE; AT-96E	ATN-12S; ATN-12XE; ATS-12S; 12S	caramel; ivory; white; brown; black; silver; gray	PM2280DQ ◆	 #11

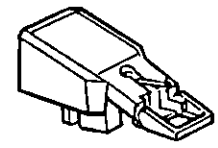
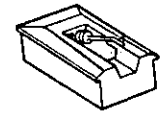
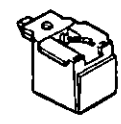
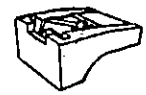
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR AUDIO TECHNICA CARTRIDGES (CONT'D)				
AT-13E; AT-35; AT-35X; AT-35U; AT-VM35; AT-VM35U; PRO-13E	ATS-13; AT35-5D; AT35-EL; VM35-EL	chinese orange; red	PM2279DE	
AT-14S; AT-VM35F; AT-VM35FU; PRO-14S	ATS-14; VM-35FD	burgandy; purple	PM2281DQ	 #15
AT-13EA	ATN-13	chinese red; green; yellow	PM2284DE	
AT-14SA	ATN-14	burgandy; purple; black	PM2285DQ	#12
AT-15XE	ATN-15XE; XE	black	PM2287DE	
AT-15S; AT-15SA; AT-15SS; AT-20SL; AT-20SLA; AT-20SS	ATN-15; ATN-15SS; ATS-15; ATN-20; ATN-20SS; ATS-20; ATN-20SLA	black	PM2282DQ	#14
AT-21; AT-21X; AT-66; AT7B-7D;	AT21-5D; AT66-7D AT21-EL	yellow; lt. gray	PM2848D	 #64
AT-55	AT55-7D	lt. gray; orange; white	PM2305D METAL INLAY	 #65
ATP-1; ATX-1; ATX-11	ATP-N1; ATX-N1; ATX-N11	gray; white	PM2291D	
ATP-2; ATX-3E	ATP-N2; ATX-N3	gray; white	PM2292DE	
ATP-3; ATX-5E	ATP-N3; ATX-N5	gray; white	PM2293DE	COMPASS SERIES #24
AT-51;-51E;-52; -52E;-53;-53E;-55XE; -55XE;-57XE;-59XE	ATN-51;-51E; -52;-52E;-53;-53E; -55E;-57XE;-59XE	black; purple	PM2314DE	 #82

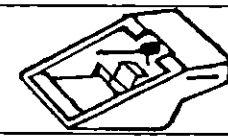
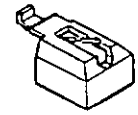
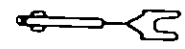
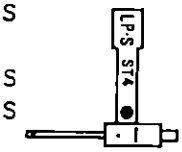
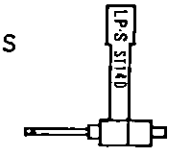
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR AUDIO TECHNICA CARTRIDGES (CONT'D)				
AT-70; AT-770; AT-70L	ATN-70; ATN-770; ATN-70L	red; gray; blue; black	PM2294D	
AT-71; AT-72; AT-771; AT-772	ATN-71; ATN-72; ATN-771; ATN-772	yellow; brown; black; orange; gray	PM2295D	
AT-71E; AT-72E; AT-771E; AT-772E	ATN-71E; ATN-72E; ATN-771E; ATN-772E	blue; green	PM2296DE	#21
AT-105	ATN-105	yellow	PM2299D	
AT-110E	ATN-110E	blue	PM2300DE	#22
AT-103	ATN-103	yellow; red	PM2313D	
AT-120E;AT-130E; AT-135E;AT150E	ATN-120E, ATN-130E; ATN-135E; ATN-150E	gold; blue; orange; black	PM2301DE	
AT-125LC; AT-130LC; AT-140LC	ATN-125LC; ATN-140LC; ATN-152LP; ATN-130LC	ivory; burgandy	PM2302DQ	
AT-155LC	ATN-155LC	black	PM2303DQ	#13
AT-102P; AT-102EP; AT-112EP	ATN-102P; ATN-102EP; ATN-112EP	blue; green; gray	PM2309DE	
AT-122EP; AT-122LP; AT-132EP; AT-152LP	ATN-122EP; ATN-122LP; ATN-132EP; ATN-152LP	red; black; gold; brown; ivory	PM2311DE	#81
AT-201EP; AT-216EP; AT-231LP	ATN-201EP; ATN-216EP; ATN-231LP	ivory; brown; blue	PM2316DE	 #146

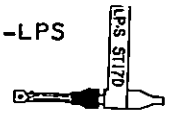
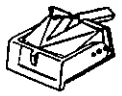
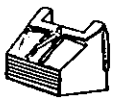
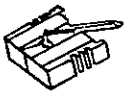
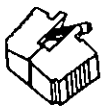
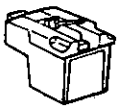
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE	
FOR AUDIO TECHNICA CARTRIDGES (CONT'D)						
AT-750	ATN-750	gray; red; black; orange	PM2306D	●		#77
AT-892	ATN-892	black	PM3097D	●		#108
AT-936	ATN-936	red; white; black; orange	PM2307D	●		#78
AT-952	ATN-952	black; red; white	PM2308D	●		#79
AT-3100; -3200	ATN-3100; -3200	black; red; blue	PM2319D	●		
AT-3100E, -XE; AT-3200E, -XE	ATN-3100E, -XE; ATN-3200E, -XE	black; red; brown	PM2320DE	⬬		#150
AT-3400,-C; AT-3401 AT-3410;AT-3450,-L; AT-3451;	ATN-3400,-C; ATN-3401,-3410; ATN-3450,-L; ATN-3451	brown; black; red;blue; gray; orange; yellow; white; violet	PM2298D	●		#26
AT-3472P; AT-101P; AT-3492P;	ATN-3472;ATN-101; ATN-3492	white;red; ivory;black; gray; green; blue	PM2315D	●		
AT-3472EP;AT-101EP; AT-3492EP	ATN-3472EP,ATN-101EP; ATN-3492EP	brown; ivory	PM2321DE	⬬		#83
AT-3600,-L,-C AT-3601;AT-3650; AT-3651	ATN-3600,-L,-C ATN-3601;ATN-3650; ATN-3650C,-L;-3651	red; yellow gray; orange purple; black	PM2312D	●		
AT-3651E; AT-3652	ATN-3651E; ATN-3652E	green; blue	PM2322DE	⬬		#114
AT-3710; AT3711,-E; AT-3712	ATN-3710; -3711, ATN-3711E;-3712	green; black yellow; red	PM2304D	●		#23

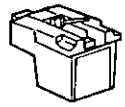
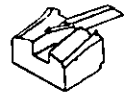
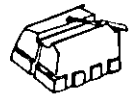
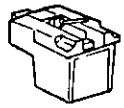
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR AUDIO TECHNICA CARTRIDGES (CONT'D)					
AT-3721	ATN-3721	black; yellow	PM3077D	●	#97
AT-3830; AT-3831	ATN-3830; ATN-3831	black	PM2318D	●	#145
AT-3851	ATN-3851	black	PM2317D	●	 #144
FOR A. U. E. CARTRIDGES					
CP-28S		white	PM2853D	●	#76
CP-30; CP-33		white; orange	PM2854D	●	 #80
FOR BANG & OLUFSEN CARTRIDGES					
SP1; SP2; SP3; SP6; SP7; SP8; SP9; SP10; SP12; SP14; Stereodyne II; Stereodyne III	RD-7; SRD-7	black; red	PM2410D	●	#27
FOR BSR CARTRIDGES					
TC8H, TC8M, TC8S, TC8SH	TC8R, -8RS, -8ST, -8RD, -8G		3009 S-LPS 3009D D-LPS		
SERIES C-1; SC5H; SX1;SX2;SX5;SX6; X1;X2;X3;X4;X5.	ST-3, -4, -5, -6		2421DS D-LPS/S-LPS		
	ST-8, -9, -10		2424 S-LPS/S-LPS 2424DS D-LPS/S-LPS		
SC5M;SX6H,SX6M, X4M,X5M			2427DS D-LPS/S-LPS		

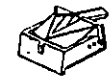
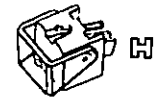
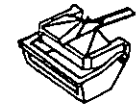
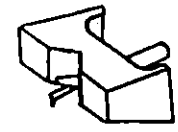
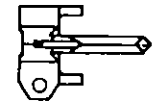
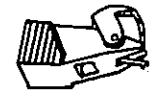
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR BSR CARTRIDGES (CONT'D)				
SERIES SC7;SC8; SC10;SC12.	SERIES ST-16;-17; -20;-21.		2428DS	D-LPS/S-LPS 
FOR C. E. C. CARTRIDGES				
MG-1; MG-II	CN-1; CN-2	red	PM3096D	●  #107
PC-1	RS-1; MM-1	gray; red; black; orange	PM2306D	●  #77
MC-5	MC-5A; MC-5S MC-5LS	yellow; brown; white	PM3090D	●  #101
MC-6	MC-6S	white; gray	PM2834D	●  #61
MC-7; MC-20	MC-7S; MC-20S	red; lt. gray	PM2848D	● #64
VC-10	VC-10S	gray; yellow	PM2295D	●  #21
MC-12	MC-12S	gray; red	PM2275D	● #11
F-15E	N-15E	white	PM3023DE	⬬ #67
	N-103	black; white; ivory	PM2315D	● #83
FOR CHUO DENSHI CARTRIDGES				
6-2098-1 6-2070-2	CZ-680	black	2481D	D-LPS

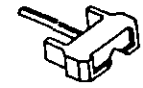
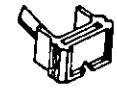
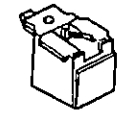
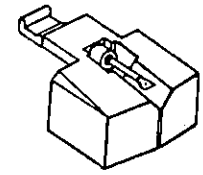
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR CHUO DENSHI CARTRIDGES (CONT'D)					
6-2188-1A PA-51M-15	CZ-398-1	white	2480D	D-LPS	
FOR CROWN CARTRIDGES					
AM-X-82; AM-X-86; AM-X-90	AM-XA-82 AM-XA-86 AM-XA-90	gray; red	PM2275D	●	
AM-X97	AM-XA-5	yellow	PM2276D	●	#11
AM-X-87	AM-XA-1	yellow	PM2295D	●	 #21
FOR DENON (COLUMBIA-JAPAN) CARTRIDGE					
JN-10; JN-78; PU-1340; PU-1344 PU-1678; SMC-250	DSN-10; DSN-11; DSN-12; DSN-13 DSN-18; DSM-23;	white; red; black; ivory; gray	PM2834D	●	#61
PUH-30; PV-1556	DSN-15	white	PM2848D	●	 #64
GM-20	DSN-24	red	PM2472D	●	 #65
JM-12	DSN-28	yellow	PM2276D	●	
	DSN-54	green	PM2277DE	⬬	
JM-13	DSN-30	gray	PM2280DQ	◆	#11
JM-18	DSN- 39; DSN- 39C	yellow	PM2295D	●	 #21

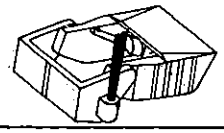
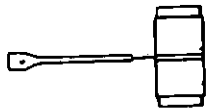
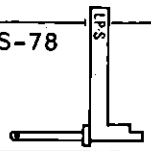
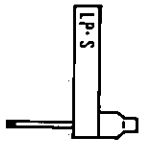
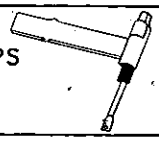
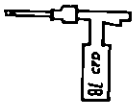
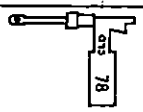
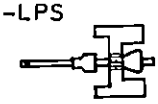
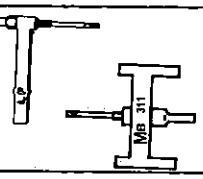
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
	FOR DENON (COLUMBIA-JAPAN) CARTRIDGE (CONT'D)				
JC-24	DSN-45	black	2481D	D-LPS	
	DSN-48	red	PM3096D	●	 #107
	DSN-55	orange; black	PM2483D	●	#121
JM-63	DSN-63	black	PM2318D	●	#145
		DUAL CARTRIDGES			
SP-1	DN-301	black; red	PM2410D	●	#27
FF15/II-D	DN-363	red	PM3024D	●	 #67
V15/IIIDL-M	DN-352	black	PM3146DE	⬬	 #58
V15/AC; V15/DAC	DN-311; DN-314	gray; blue	PM4007D	●	
V15/AT	DN-315	gray	PM4006D	●	#42
M44MF; M44MG	DN-305	gray; white; red	PM3117D	●	 #51
ULM50E; TKS52E; ULM60E; ULM65E; ULM66E	DN150E; DN155E; DN160E; DN165E; DN166E	black	PM3027DE	⬬	 #128

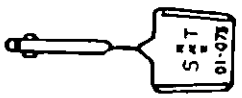
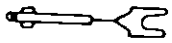
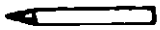
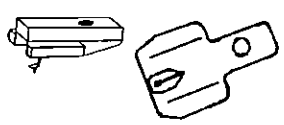
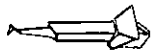
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
DUAL CARTRIDGES (CONT'D)				
M71MB-D; M73G; M73MG; M75D; M75G; M75MG; M91MGD; M101MG	DN-320; DN-321; DN-323; DN-325; DN-330; DN-340; DN-365	beige; dk gray; red; green	PM3128D	 #52
DM103ME	DN-345	yellow; black	PM3136DE	 #53
D-105-ED; D-360; D-362; M95ED; M95G-LM	DN-360; DN-362; DN-370	black; dk gray; yellow	PM3155DE	#59
DMS-235; DMS-239	DN-235; DN-239	white	PM2312D	 #114
FOR ELAC CARTRIDGES				
PE8000; STEREO TWIN; 200; 200D; 220; 222; 240; STS-210; STS-300; STS-310; STS-322	DM-220; DM-222; DM240; DM-310; DNM-210	gold	PM2556D	#9
STS-155-17; STS-244-17; STS-244-C; STS-244-G; STS-255-17; STS-344-17; STS-355-17; STS-444-12; STS-455-12; STS-555-12;	D-155-17; D-244-C; D-244-G; D-255-17; D-355-17; D-444-12; D-455-12; D-555-12	black; gray	PM2560D	#71
FOR ELECTRO-VOICE CARTRIDGES				
5601D	2650D	red	PM2650D	 #38
600D; 6010D; 86454; V-100; V-100B; LANDMARK 100	2660D; 87069; AT-8L	red	PM2275D	
6009D	2669D	yellow	PM2276D	#11

NOTE: Drawings not to actual size.

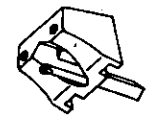
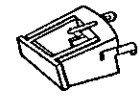
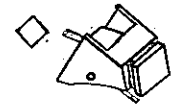
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR ELECTRO-VOICE CARTRIDGES (CONT'D)					
6012D	2671D	red	PM2671D		 #16
21,22,26,27 SERIES 126 - 129 SERIES	S1-1;D1-1;S3-3; 2604 &D;2605		2604 2604D	S-LPS D-LPS	
117; 131 &D; 148 &D;154 &D; 259 &D;160 &D	2616 &DS J-77X &SD		2616DS	S-LPS/S-78	
132;141 &D; 149 &150 SERIES; 157 &D;158 SERIES 163 &D;169 &D 186 SERIES 256 &D; 258 &D; 278 &D; 79 &D;280D; 289.	2619 &DS 2620 &DS 2622 &DS		2622DS	D-LPS/S-LPS	
Early Production Models 198 &D;199 &D; 275 &D;5166 &D	2624 &DS		2624DS	D-LPS/S-LPS	
181 &D;182; 5000 - 5005 &D 5010 - 5018 &D 5050D,-51D,-53D -58D,-67D,-75D, -85D,-86D,-88D, -92D; 5168 - 5170 &D; 5558 - 5563D;5583; 5606D; 5622D;5800D	CBD &S;CCD &D;CFD &S CHD &S;CJD;JBD &S JCD &S;JFD;JHD;JJD &S; JKD &S;KBD;KCD;KMD &S; MFS;2630 &DS;2632 &DS 2633 &DS;2634 &DS;2635DS; 2648DS		2625DS	D-LPS/S-LPS	
5026D;5017D;5034D; 5043D-5045D;5056D; 5057D;5061;5064D; 5076 &D;5078D; 5080-5086 &D;5093D; 5094D;5096D;5099D; 5199D;5336;5543D; 5544D;5582D;5808D.	BKD;CKD CKS;CLD &S; CMD &S;FKS;FLS;HCD &S; HFD &S;HKD;HLD &S;JJD; JKD &S;KKD;KLD &S; KMD &S;2637 &DS;2638; 2639D;2646 &DS;2641 &DS 2642DS		2636DS 2640 2640D	D-LPS/S-LPS S-LPS D-LPS	 
168 &D;175D;198 &D; 199 &D;275 &D;277 &D; 282 &D;284 &D;5095D; 5097D;5098D;5149D;5166 &D			2644 2644DS 2647D	S-LPS/S-78 D-LPS/S-78 D-LPS	

NOTE: Drawings not to actual size.

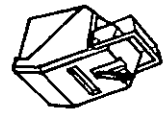
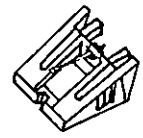
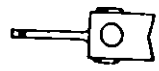
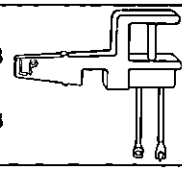
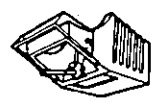
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR ELECTRO-VOICE CARTRIDGES (CONT'D)					
30 &D,35 &D;36 &D; 42 &D;55;80;82; 86-88;85-98 SERIES 135	3005 &D 3006 &D		3005D	D-LPS	
57-71;77-94;99; 100;102;103;119-121; 130;142-146 &D;164; 165;167;191;196;245; 246;265;295-297; 5175,-78&D,-79,-80, -84,-85;5200,-01, -03,-04,-06,-12,-13, -15,-16,-19,-22,-27, -28,-31,-46,-48; 5325,-26,-29,-34,-38, -72,-73,-75,-76;5440D; 5442-5465;5486.	3000-3002 &D 3410 &D;3411; 3412;3425		3009 3009D	S-LPS D-LPS	
All thumb screw & Set screw cart idges			3805	Steel	
FOR EMPIRE CARTRIDGES					
88, 108, 108P	S-88-7RD; S-108-7RD; S-108P-5RD	white	PM2400D		 #28
880; 880P; 880PE	S-880P-6RD; S880-7RD; S880PE-ERD	green; black	PM2401D		 #8
888; 888P	S-888P-6RD; S-888-7RD	brown; orange	PM2403D		#29
808; 808E; 80EE	S-808-7RD; S-80EE-ERD; S-808E-ERD	black; red	PM2415D		
888E; 888PE; 888SE; 888TE; 888VE; 999VE	S-888E-ERD; S-888PE-ERD; S888SE-ERD; S888TE-ERD; S888VE-ERD; S999VE-ERD	blue; pink; green; purple; white; yellow	PM2407DE		#30

NOTE: Drawings not to actual size.

FOR EMPIRE CARTRIDGES (CONT'D)

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
909/X; 999/X	S909X-7RD; S999/X-7RD; S909/X-RD; S999/X-RD	gray; brown	PM2392D	
90EE/X; 909E/X; 999E/X; 999PE/X; 999QE/X; 999SE/X; 999TE/X; 999VE/X; 1000ZE/X	S999E/X-ERD; S909/X-ERD; S90EE/X-ERD; S999PE/X-RED; S999SE/X-ERD; S999TE/X-ERD; S999VE/X-ERD; S1000ZE/X-ERD	black; blue; purple; orange; red; white; green	PM2395DE	#34
66/X; REX & PVT. Label Series	S66/X-7RD; S906; S66/X; Many More	red	PM2390D	
66E/X; 66EE/X; 66LE/X; 66PE/X; 66QE/X; 700T; 2000X; REX & PVT Label Series	S906E; S66E/X-ERD; S911E; S66LE/X; S910E; S912E; S917E; S66PE/X; S66QE/X; S700T; S2000X; Many More	black; yellow; purple; white; metallic red	PM2389DE	 #31
100S; 200E; 280LT	S22E; S100S; S200E; S200LTD	blue; pink; yellow; orange	PM2418DE	
300ME; 380LT; 400TC; 480LT; 5001D; 580LT; 600; 800; 900; 980; 1000; 1080 Series	S44E; S300ME; S55E; S400TC; S400LTD; S5001D	smoke; green; red; tangerine; purple	PM2420DE	 #35
2000; BC-1	S2000; SBC-1	smoke; yellow	PM2384D	
2000E	S2000E	red translucent	PM2385DE	
2000E/III; 2000E/II; 2000E/I	S2000/III; S2000E/II; S2000E/I	translucent clear; blue; green	PM2388DE	
4000D/III; 4000D/II; 4000D/I; 77-D4; 404/CDQ	S4000D/I; S440D; S4000D/III; S4000D/II	black; blue; white; yellow	PM2383DQ	#31 or #32

NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR EMPIRE CARTRIDGES (CONT'D)				
2000Z; 2000T; 600T	S2000Z; S2000T; S915E; S600T	gold; metallic blue; metallic silver	PM2380DE ⬬	#33
15X; 150C; 370C; LTD150; OP100; RM05	SC1	black	PM2483D ●	
40E; 250E; 475E; LTD250; OP110; RM20	SE1	blue	PM2484DE ⬬	#121
190LT; 1C	S111	clear; black	PM2485D ●	
290LT; 390LT; 3E	S333	blue; black	PM2486DE ⬬	#124
FOR EUPHONICS CARTRIDGES				
U-1,U-2,U-4,U-5 Series	214,215,216		2677D D-LPS	
U-8, U-10, U-88 Series	253,255		2679 S-LPS/S-78	
U-9,U-11,U-89,U-98 Series	254,256		2679DS D-LPS/S-78	
U-15,U-17, Series U-19-14,U-21 Series	508,509,510,511,512, 530,551,552,601		2682DS D-LPS/S-78	
FOR EXCEL CARTRIDGES				
ES-70	S-70	blue; yellow	PM3208D ●	
ES-70E; ES-70EX; ES-70ER; ES-70FR	S-70E; S-70EX; S-70ER; S-70FR	brown; translucent; red	PM3209DE ⬬	#139
ES-70EX/II	S-70EX/II	translucent brown	PM2891DE ⬬	 #17

NOTE: Drawings not to actual size.

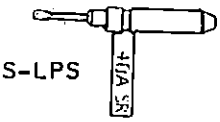
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE

FOR FISHER CARTRIDGES

See: SANYO

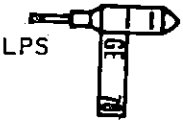
FOR GARRARD CARTRIDGES

GDS-2,GSS-1 KS-40A,KS-41A,B,C	AD, AS		3233DS	D-LPS/S-LPS



FOR GENERAL ELECTRIC CARTRIDGES

New VR-11 Series 4G-040, 41, 50, 52, 53, 61, 63, 4GS-, 01D, 02D, 01D-02D, 01D-02S, 01S, 02S, 01S-02D, Fits this series only. Not interchangable with earlier type.	4G-01D, 4G-01S, 4GS-7D, 4GS-7S		2733D	D-LP
C-100, EA97X250 RS3824, C-100A, C-200, C-400, C-450, EA97X497, EA97X469, RS4694	EA1004, EA97X216, EA97X248, EA97X249, EA97X561, EA97X572, RS3825, RS4154, RS4413, RS4634, TA-1,TA-2		2739DS	D-LPS/S-LPS
VR-1000-5,VR-1000-7 VR-1000-3	DR-3D, DR-5D, DR-7D,	white	2751DE	D-ELL-LPS (.3x7)
C-50, C-500, C-600, C-650, EA80X165, EA80X209, RS6527, EA80X234, RS6770, EA1013	EA-1014, EA2055, EA2060, EA2903, EA80X166, EA80X235, EA80X324, RS6528		2744 2744DS	S-PS/S-LPS D-LPS/S-LPS
C-660 EA2223, EA80X431	EA2224, EA80X432		2752 2752D	S-LPS D-LPS

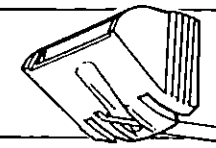
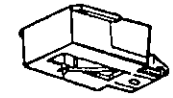
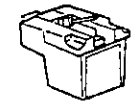
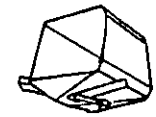
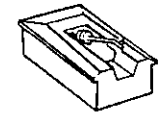
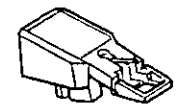
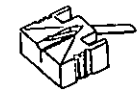


FOR GRADO CARTRIDGES

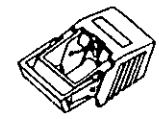
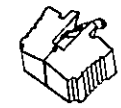
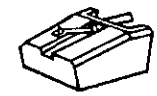
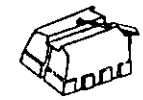
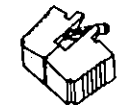
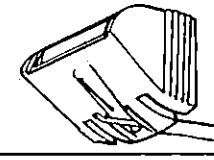
BCR; BCR/D; BTR; BTR/D; HK-BCR	BCR/S; BTR/S	lt. gray	PM2721D	●	#36
FCE,FCR, FTE,FTR.	FCE/S,FCR/S, FTE/S,FTR/S.	dk. gray	PM2723DE	⬬	#37

NOTE: Drawings not to actual size.

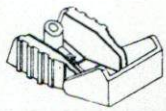
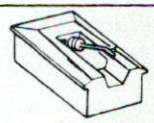
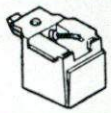
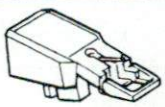
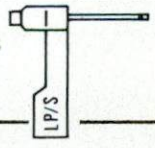
HITACHI CARTRIDGES

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
MT-12; MT-14	DS-ST12; DS-ST14	white; gray	PM2315D	#83
MT-11F	F-11	yellow; black	PM2924D	 #70
MT-16	DS-ST16	black	PM2318D	 #145
MT-17	DS-ST17	ivory; red; yellow	PM2313D	
	E150	black	PM2301DE	#13
C-EX; MT-22; MT-23	F-22; F-23; DS-ST40	green; red	PM2775D	#86
MT-30; VFS-290	DS-ST30	yellow	PM2295D	 #21
MT-32	DS-ST32	red	PM2868D	 #91
MT-33; MT-13	DS-ST33; DS-ST13	blue; green	PM2309DE	#81
MT-35	DS-ST35	red	PM2298D	 #26
	DS-ST60	black; red brown	PM2320DE	 #150
MT-102; DMC-2200	DS-ST102	green; blue; yellow	PM3101D	 #112

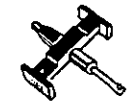
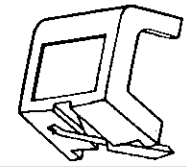
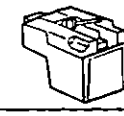
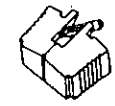
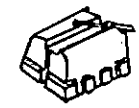
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
HITACHI CARTRIDGES (CONT'D)				
MT-103	DS-ST103	black; yellow	PM2890D	 #17
MFS-170; MFS-171; DPK-11	DS-ST3; HN-SP2	white; red	PM2834D	 #61
VFS-260; VFS-261; VFS-261C	DS-ST26	yellow	PM2276D	
VFS-261E VFS-260E	DS-ST26E; DS-ST104	blue; ivory	PM2278DE	#11
1M-1310	CN-104	blue; brown; red	PM3095D	 #106
FOR JAPAN VICTOR (JVC, NIVICO) CARTRIDGES				
	DT-12	red	PM2472D	 #65
HMD-1004; HMD-1009	BS-16; DT-16; DT21H; SS-16	blue; white; gray	PM2834D	 #61
HMD-1010; CS-1027D HMD-1011B	DT-25; DT-25H	red	PM2944D	#117
MD-1014	DT-31; DT31B	green; red gray	PM2275D	
MD-1029	DT-35	brown; yellow	PM2276D	
4MD-30X; 4MD-35X	4DT-30X; 4DT-35X	white; gray silver; ivory	PM2280DQ	#11
4MD-1X 4MD-5X; MD-1016	DT-33G; DT-33H; DT-33S; 4DT-1X; 4DT-5X	yellow; black; green; white	PM2924D	 #70

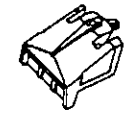
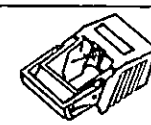
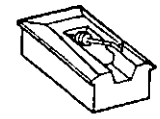
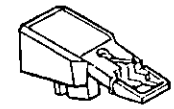
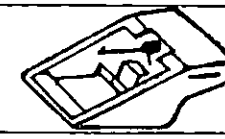
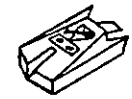
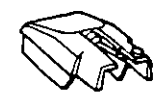
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR JAPAN VICTOR (JVC, NIVICO) CARTRIDGES (CONT'D)					
4MD-20X	4DT-20X; MD-20X	burgandy; gold	PM2281DQ		 #15
MD-1038	DT-38	red; gray; yellow	PM2298D		 #26
LINEAR TRACK TURNTABLE; MD-1034	DT-37L	violet	PM2943DE		#95
MD-1032	DT-36	red	PM3096D		#107
MD-1041	DT-41	dk. blue	PM2945D		#123
	DT-45, DT-45/B	white; blue;	PM2315D		
	DT-45E	brown	PM2321DE		#83
MD-1055Z; MD-1055E	DT-55; DT-55/II; DT-55W	blue; yellow; red	PM2312D		 #114
	DT-56	black	PM2318D		#145
	DT-200E; DTE3E	brown; red; black	PM2320DE		 #150
05232;31276;75310;	DT-7;PT-4;SL-2;SL2L; SL-14;SLS-2;SS-2;SS-14;		2829D	D-LPS	
EG-7301l;SCC-3	ST-4;ST-7		3009D	D-LPS	
CS-1007,-1007S, -1007D;HF	DTS-2;ST-17,STS-2		2835DS	D-LPS/S-78	

NOTE: Drawings not to actual size.

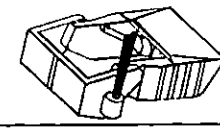
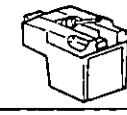
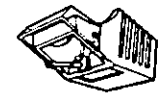
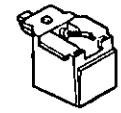
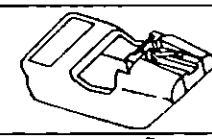
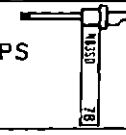
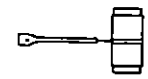
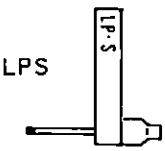
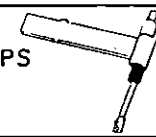
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR JAPAN VICTOR (JVC, NIVICO) CARTRIDGES (CONT'D)					
ST-51;PU-1033	DT-51		2481D	D-LPS	
FOR JELCO CARTRIDGES					
MC-15D; MC-15E	ND-15D; ND-15E	green	PM2942D	●	 #74
MC-50	ND-50D	black	PM3102D	●	#118
FOR KENWOOD (TRIO) CARTRIDGES					
DM-11; V-48	N-11; N-48	yellow; orange	PM2295D	●	 #21
V-09	N6-AT	white; gray	PM2834D	●	 #61
T-14-23; V-23	N-23	gray; white	PM3089D	●	#100
V-26; V-32; V-33	N-26; N-32; N-33	black; red; gray	PM2275D	●	
V-41A	N-41A	blue; yellow	PM2276D	●	
V-40; V-40A; V-41; V-42	N-40 N-40A; N-41; N-42	ivory; blue; black	PM2280DQ	◆	#11
V-38	N-38	purple; red	PM2472D	●	 #65
V-39; V-39/II	N-39; N-39/II	orange; black	PM2942D	●	#74

NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR KENWOOD (TRIO) CARTRIDGES (CONT'D)					
V-39/III	N-39/III	black	PM2939D	●	#126
V-43; V-44	N-43; N-44	tan; blue; orange	PM3116D	●	 #122
V-45	N-45	black	PM2890D	●	 #17
V-49	N-49	black; orange	PM2308D	●	#79
V-51	N-51/II	red	PM3102D	●	#118
V-52	N-52	blue; red	PM2298D	●	 #26
V-55,-B	N-55,-B	blue	PM2319D	●	 #150
V-56	N-56 N-56B	black	PM2317D	●	 #144
V-59	N-59	black	PM2938D	●	 #147
V-63	N-63	blue; ivory; white	PM2315D	●	#83
FOR MAGNAVOX CARTRIDGES					
560356-1; 560356-2	560349-1; 560349-2	yellow	PM2276D	●	
560429-2	560430-1; 560430-2	blue	PM2278DE	⬬	
560370-1; 560379-1	560372-1; 560372-2	white	PM2280DQ	◆	#11

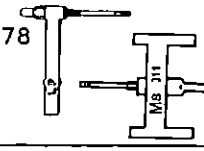
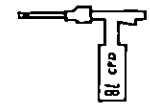
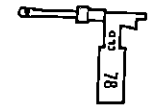
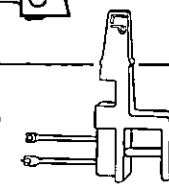
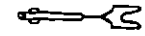
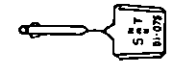
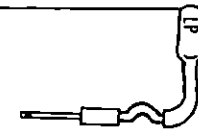
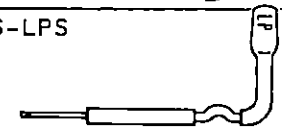
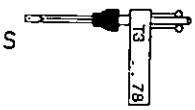
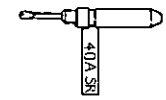
NOTE: Drawings not to actual size.

FOR MAGNAVOX CARTRIDGES (CONT'D)

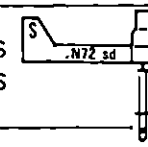
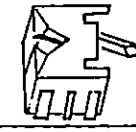
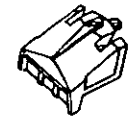
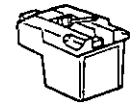
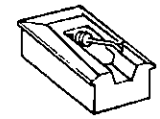
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
560369-1; 560369-2; 560369-3; 560398	560371-1; 560371-2	red	PM2671D	●	 #16
560369-10; 560432	560424-2; 560433	red	PM2294D	●	 #21
560418-1	560421-1	yellow	PM2890D	●	 #17
560434	560435-1	white	PM2827D	●	#39
25130079; 25130081	4H01510029; 4H01510031	gray; black	PM2887D	●	#126
25130071	25130072	red	PM2312D	●	 #114
5604370021	5604370022	gray	PM2232D	●	 #4
560355-1, -2	560354-2		2130DS	D-LPS/S-LPS	
ALL Series: 560232, -33, -50, -90, -96	All Series: 560034, -35		2604 2604D	S-LPS D-LPS	
All Series: 560305, -07, -10, -11, -15, -40, -67	All Series: 560306, -08, -12, -39		2622DS	D-LPS/S-LPS	
560345,-2 (Early Models); 560350,-2			2624DS	D-LPS/S-LPS	

NOTE: Drawings not to actual size.

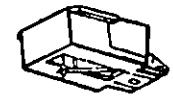
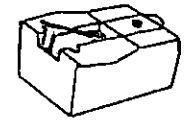
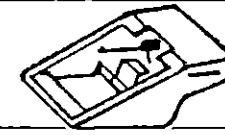
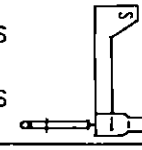
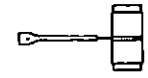
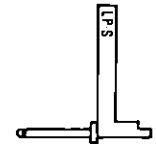
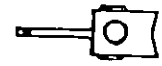
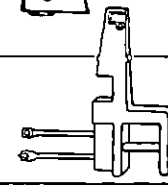
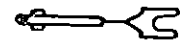
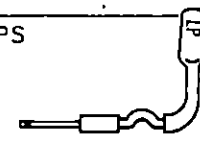
FOR MAGNAVOX CARTRIDGES (CONT'D)

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE	
All Series: 560337, -45, -46, -47, -50, -55, -84	560336,-1-2; 560344-2		2644DS 2647D	D-LPS/S-78 D-LPS	
560360-2; 560389 Series	560359-1		2625DS	D-LPS/S-78	
560348-1; 5060353-1	560352-2; 560366-2		2636DS	D-LPS	
560296-7,-8	560299-2,-4		2677D	D-LPS	
560324,-2	560331-3		2679DS	D-LPS/S-78	
All Series: 560180, -209, -236, -288	All Series: 560182, -183, -190, -210, -211, -289		3009 3009D	S-LPS D-LPS	
560277-1,-2	560283-2; 560285-2		3005D	D-LPS	
560244-1; 560225-1	560191-2; 560200-1		3201DS	D-LPS-LPS	
560246-2; 560247-1; 560259-1	560244-2; 560245-4		3213DS	D-LPS/S-LPS	
560389-1			3393DS	D-LPS/S-LPS	
76122075	76123074		3233DS	D-LPS/S-LPS	

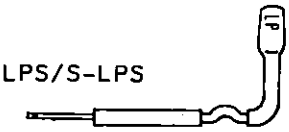
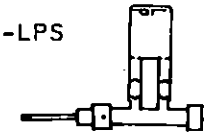
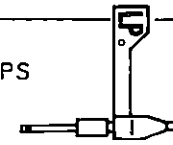
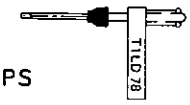
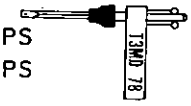
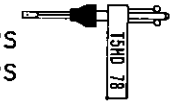
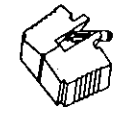
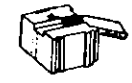
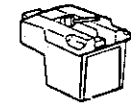
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR MASTERCRAFT CARTRIDGES					
MCI-5	MCI-5	gray; white	PM3089D	●	#100
FMS-960			2123 S-LPS/S-LPS 2123DS D-LPS/S-LPS		
FOR MGA-MITSUBISHI CARTRIDGES					
MM-2	3D-MM2	black	PM3026DE	⬬	#96
DMC-8700	3D-33M	red; green	PM2944D	●	 #117
DMC-2200	3D-34M	green; blue; yellow	PM3101D	●	#112
MAG-1; MAG-2	3D-37M; MD-1; MD-2	orange; blue; beige	PM3116D	●	 #122
DMC-82	3D-38M	green	PM3093D	●	#104
MAG-3	3D-40M	gray; yellow	PM2275D	●	#11
MAG-4	3D-44M	black	PM2308D	●	#79
	3D-45M	black; yellow	PM2294D	●	
DP-200	3D-42M;	black; red	PM2295D	●	#21
MAG-47	3D-47M	red; gray; yellow; brown	PM2298D	●	 #26

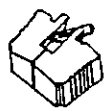
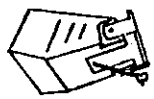
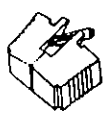
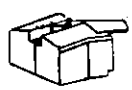
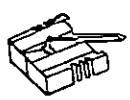
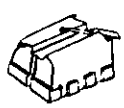
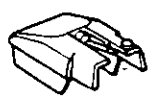
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR MGA-MITSUBISHI CARTRIDGES (CONT'D)					
	3D-51M	black	PM2318D	●	 #145
	3D-52M	blue	PM3104D	●	 #148
	3D-54M	black	PM2317D	●	 #144
FOR MOTOROLA CARTRIDGES					
59C61496A01 59C62432A01 59C62945A01	92-148DS, 59C61496A04, 92-148SS, 59C1946A03 92-150SS		2123 2123DS	S-LPS/S-LPS D-LPS/S-LPS	
59C643220 59C643221 59K643335	92-289S7, 47K643151 92-289D7, 47K643150 92-289S3, 47K643152		2604 2604D	S-LPS D-LPS	
59C61640A01, 59C62077A01, 59C61640A03, 59C62077A03	92-294DS, 59C6164A05, 59C61640A02, 59C61640A04, 59C62077A02, 59C62954A02		2616DS	D-LPS/S-78	
59C611A01, 59C61100A05, 59C61270A01	92-388D7, 59C61100A04, 92-388S7, 59C61100A03		2677D	D-LPS	
59C62266A01 59C62266A05	92-389SS, 92-390SS, 59C62266A03, 92-389DS, 92-390DS, 59C62266A04		2679DS	D-LPS/S-78	
59P60015A03 59P61619A01 59B63890 3 59C60918A01	92-143D1, 47PG60000A18, 92-143S1, 59C61619A03, 92-143S3, 59C60918A03, 59C61619A02 92-143DS 92-143S7, 92-144S7, 47-P60015A01 92-143D7, 92-144D7, 47C60015A09		3009 3009D	S-LPS D-LPS	
59B634441	92-700DS, 92-7071DS, 47K639290, 92-700SS, 92-701SS, 47K632185 92-702SS		3201DS	D-LP/S-LPS	

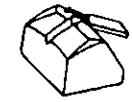
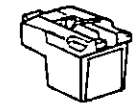
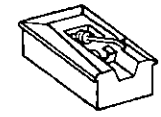
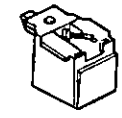
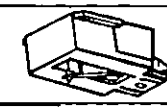
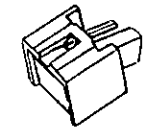
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR MOTOROLA CARTRIDGES (CONT'D)				
59C645700, 59C645701	92-706DS, 47K645702, 92-706SS, 47K645703		3213DS	D-LPS/S-LPS 
59C60337A01, A02 59D60872A01, A02 59D62271A01	92-707SS, 92-712SS, 59D60872A03 92-707DS, 92-712DS, 92-708SS, 92-709SS, 59D60872A04, 59D62271A02 92-708DS, 59C62271A02		3214DS	D-LPS/S-LPS 
59C61150B01, 59C6127B01, 59C61519B01	92-827SS, -DS 92-828SS, -DS		3332DS	D-LPS/S-LPS 
59C60615B01 59C61182B03, 59C62971A01, 59C63643A01, 59C63543A04, 59C63643A05, 59C63643A06, 59C63643A07, 59C63784A01, 59C63784A03	92-810SS, 92-812SS, 59-62971A03, 59C63643A03		3391	S-LPS/S-LPS
	92-810DS, 92-812DS, 59C63643A02		3391DS	D-LPS/S-LPS 
5962971A02, 59C63816A01	92-9811SS, -DS, 59C62971A04		3393 3393DS	S-LPS/S-LPS D-LPS/S-LPS 
59C60459B01, 59C60868B801			3395 3395DS	S-LPS/S-LPS D-LPS/S-LPS 
FOR NAGAOKA CARTRIDGES				
NM-33S	33-05; 33-07	white	PM2834D ●	 #61
	CS-201	white	PM2848D ●	 #64
FOR NIPPON ELECTRIC (NEC) CARTRIDGES				
CG-6000	LP-6000D	blue; gray; red	PM2294D ●	 #21

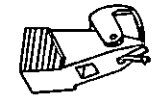
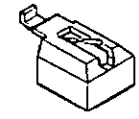
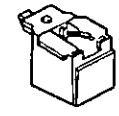
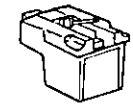
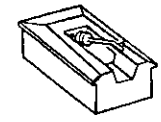
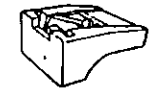
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
	FOR NIPPON ELECTRIC (NEC) CARTRIDGES (CONT'D)			
CG-7000	LP-7000D	red; gray	PM2275D ●	#11
CG-8000	LP-8000D	green	PM2277DE ⬬	
NS-810; NS-812; NSP-240	LP-20D; SP-20S	white; gray	PM2834D ●	 #61
	LP-305M	white	PM2870D ●	 #93
	FOR ONKEN CARTRIDGES			
	MG-2	black; orange	PM2308D ●	#79
	FOR ONKYO CARTRIDGES			
OC-5M; OC-13M	DN-5ST; DN-13ST	white; gray	PM2834D ●	 #61
OC-15	DN-15ST	green; gray	PM2848D ●	 #64
OC-16M	DN-16ST	yellow; brown	PM3090D ●	 #101
OC-18M; OC-24M; OC-36M	DN-18ST; DN-24ST; DN-36ST	green; red; orange; brown	PM2472D ●	 #65
OC-27V; OC-32V	DN-27ST; DN-32ST	gray; red; yellow	PM2275D ●	 #11
OC-29M; OC-34	DN-29; DN-34	green; red; blue	PM2775D ●	#86
OC-30	DN-30	black	PM2392D ●	#34

NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR ONKYO CARTRIDGES (CONT'D)				
OC-33	DN-33ST	white; red	PM2307D ●	 #78
OC-35M	DN-35ST	yellow	PM2295D ●	 #21
OC-40	DN-40ST	black	PM2308D ●	#79
OC-52M; OC-55	DN-52ST; DN-55S	gray; red	PM2298D ●	 #26
	DN-61ST; DN-65ST	purple;blue; yellow	PM2312D ●	
	DN-61STE DN-63STE	purple;green black	PM2322DE ⬬	#114
OC-62	DN-62ST	black; red	PM2318D ●	 #145
OC-20IV	DN-202ST; DN-201S; -STE	blue; brown	PM2304D ●	#23
OC-410M	DN-25	blue;	PM3208D ●	#139
FOR ORTOFON CARTRIDGES				
F-15; FF-15; VMS-20S	N-15; NF-15; D-20S	* black; white	PM3022D ●	
F-15E; FF-15E; VMS-20E; VMS-20E/II	N-15E; NF-15E; D-20E; D-20E/II	* black; white	PM3023DE ⬬	
F-15MKII; FF-15MKII; FF-15XMKII	N-15/II; NF-15/II; NF-15X/II	* white; yellow	PM3024D ●	
F-15EMKII; FF-15EMKII; FF-15XEMKII	N-15E/II; NF-15E/II; NF-15XEMKII	* white; red; yellow	PM3025DE ⬬	#67

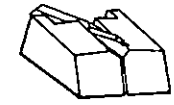
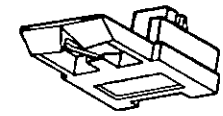
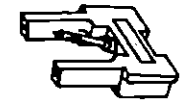
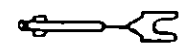
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR ORTOFON CARTRIDGES (CONT'D)				
CONCORDE 20; 20H; 30; 30H	LM-20; LM-20H; LM-30; LM-30H	black	PM3026DE	#96
ULM50E; TKS52E; ULM60E; ULM65E; ULM66E; ULM55E	DN150E; DN155E; DN160E; DN165E; DN166E; DN152E	black	PM3027DE	 #128
EPC-09STAD	EPS-27STSDD	white	PM2827D	#39
EPC-13STHD EPC-16STD EPC-17STLD	EPS-41STSD EPS-38STD EPS-17STLD	white; red	PM2854D	 #80
EPC-43 EPC-17STLD	EPS-43STSD EPS-17STLD	gray	PM2312D	 #114
EPC-74SMCD	EPS-39STSD	red; gray	PM2294D	
EPC-74SMAD; EPC-74SMBD	EPS-74STGSD; EPS-74STSD	yellow	PM2295D	
EPC-74SMED	EPS-74STED; EPS-74STGED	blue; black; green	PM2296DE	#21
EPC-75SMCD	EPS-75STCSD;-MAD,-MLD EPS-75STSD;-TFSD EPS-77STSD;-SMBD EPS-76STED	gray; red; orange; yellow	PM2298D	 #26
EPC-76	EPS-76STSD	yellow	PM2304D	 #23

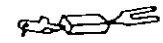
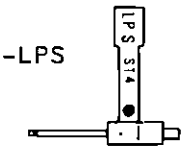
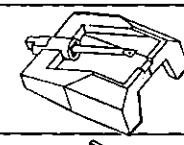
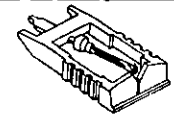
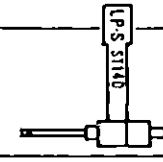
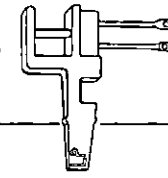
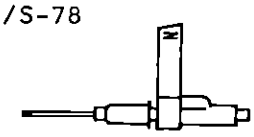
NOTE: Drawings not to actual size.

*NOTE; Ortofon styli contain different tube guides. Tube guides on stylus must fit cartridge. They are not interchangeable.

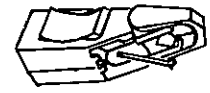
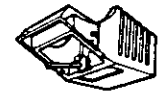
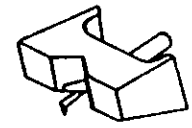
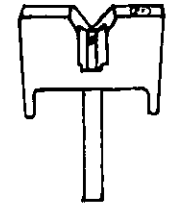
FOR PANASONIC (NATIONAL-MATSUSHITA-TECHNICS) CARTRIDGES (CONT'D)

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
EPC-78SMAD; EPC-78SMAD; EPC-78SMBD; EPC-78SMCD	EPS-31STSD; EPS-34STSD	ivory; gray green	PM2275D	●	
EPC-82SMAD; EPC-825MBD	EPS-30STSD; EPS-35STCSD;	yellow; red brown	PM2276D	●	
EPC-78SMED	EPS-35STED	blue	PM2278DE	⬬	#11
EPC-79SMAD; EPC-86SMAD; EPC-271CS; EPC-270D; EPC-290C	EPS-52; EPS-53; EPS-56; EPS-290; EPS-270DD; EPS-270SD	blue; green; orange; clear	PM2823D	●	 #62
EPC-90SMAD,-SMBD, -STGD,STGED	EPS-90SMAD,-SMBD, -STGD,-STGED	green; gray	PM2309DE	⬬	#81
EPC-96SS; EPC-450C	EPS-28; 28STSD; EPS-45STQD	yellow	PM2822D	●	 #127
LINEAR TRACK TURNTABLE; EPC-202	EPS-23C; EPS-25C; EPS-28C; EPS-202 EPS-P153; EPS-202ED	clear	PM2855DE	⬬	#87
EPC-451C; EPC-460C	EPS-46STSD	yellow	PM2018D	●	
EPC-451C; EPC-460C; EPC-460C-4	EPS-46STQD; EPS-46STSD; EPS-451QD; EPS-465QD	red; white	PM2818DQ	⬮	 #40
EPC-91	EPS-91SMAD	ivory; white	PM2315D	●	#83
EPC-27WTFJ5, -GJ5, -GS5; EPC-70LTBS, -LTC, -LTCS	EPS-04LP, -SP, -ST, -STSD		3009 S-LPS 3009D D-LPS		

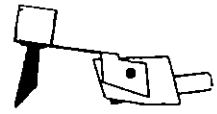
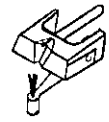
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE	
FOR PANASONIC (NATIONAL-MATSUSHITA-TECHNICS) CARTRIDGES (CONT'D)					
EPC-29, -29TTBJ4, 299TTCJ1; EPC-69STA, -69STC, -69STE	EPS-04ST		2829D	D-LPS	
EPC-34TTAD, -BD, -CD, -E; EPC-35TTA, -AD, -VD, -CD; EPC-71WTA, -B	EPS-13TT, -TTS, -15TT; EPS-13TTSD, -15TTSD		2421DS	S-LPS/S-LPS	
EPC-34STAD, -STBD, -STCD, -STC	EPS-14, -STSD		2816D	D-LPS	
EPC-34STFA, -STFAD	EPS-18ST, -STSD		2817D	D-LPS	
EPC-42STAV2D, -STAD; Models SC555A, SE850	EPS-25, -STSD		2815D	D-LPS	
EPC-05STAD	EPS-36STSD,	white; red	2824D	D-LPS (.7)	
Model RD-7413	ST-12, -14		2427DS	D-LPS/S-LPS	
U8-11; U88	U-11		2679DS	D-LPS/S-78	
FOR PERPETUUM-EBNER CARTRIDGES					
PE-9000/2	PE-9000; SR-07	black; red	PM2410D	●	#27
FOR PHILIPS CARTRIDGES					
AG-3306;AG-3224;AG-3230; AG-310;AG-3228;GP230; GP200;GP224;GP228;GP230; GP233;GP300;GP306;GP310	946/DS51,251 946/SS50,251	20001 20002	2889DS	D-LPS/S-78	

NOTE: Drawings not to actual size.

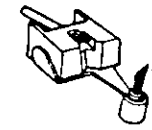
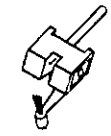
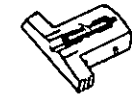
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR PHILIPS CARTRIDGES (CONT'D)					
GP-330;GP-331	D330; D331	gray; black	PM2887D	●	 #125
CA-9036	CA-9036	yellow	PM2890D	●	 #17
FOR PICKERING CARTRIDGES					
38; 39; 380 Series	D3807A; D3807AT; D-3807-ATG; D3807C; D3810C	red; black; white; gold; yellow	PM4011D	●	#41
V-15/AC2 Series; DAC; HS/CAC; CAC; P/AC; HP/AC; HK-609; NC Series NP-AC; V-15/s Series Repl. /1 Series	DAC2; D1507AC2; PD07C; DNC; D1510	gray w/ silver; white	PM4007D	●	
V-15/2AM & AT Series; P/AT, ATM; F; HAT Series; NT Series; NP/AT; V15/2 Series Repl./1 Series	DAM2; DAT2; DNT; PD07T; D1507AM2; D1507AT2	gray w/ silver	PM4006D	●	
V-15/AME-2; V-15/ATE-2; V-15/AME-1 & ATE-1 Series; NP/AME	DAME2; DATE2; D1500AME2; D1500ATE2; PD/AME	gray w/ silver	PM4000DE	⬬	
P/ATE; V-15/ATE-4; V-15/4; Special D Series,; NP/ATE	DATE4; PDE; DNE	gray w/ silver; black w/ silver	PM4044DE	⬬	#42

NOTE: Drawings not to actual size.

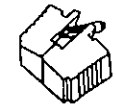
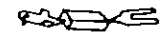
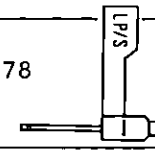
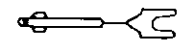
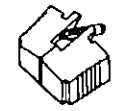
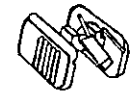
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR PICKERING CARTRIDGES (CONT'D)				
XV-15; V-15 Micro & V-15 Phase IV Series; XV-15/100; V-15 Micro IV AC; XV-15AC	D100; DIV AC; 4507AC; 4510	black w/ gold ivory w/ gold; black w/green	PM4038D	
XV-15; V-15 Micro IV & V-15 Phase IV Series; XV-15/350; XV-15/150; V-15 Micro IV AM; V-15 Micro IV AT; XV-15 AM; XV-15AT	4507 AM; D150; DIV AT; 4507 AT; D350; DIV AM	black w/ gold ivory w/ gold	PM4039D	
XV-15; V-15 Micro IV & V-15 Phase IV Series; SV-15/ 400E; V-15 Micro IV AME; XV-15AME Special Series DE	D400; DIV AME; 4500AME; D5E; D6E; D7E; D8E; DSE-1	black w/ gold; ivory w/ gold; black w/silver; gray w/silver	PM4036DE	
XV-15/1200E; XV-15/750E; XV-15/625E; XV-15/1800S	D1200; D750; D625; D1800S	black w/ gold	PM4052DE	
XV-15; V-15 Micro IV & V-15 Phase IV Series; XV-15/ 200E; V-15 Micro IV ATE; XV-15/140E; V-15 Micro IV ACE; XV-15ATE; XV-15ACE; 625-DJ	D200; D140; DIV ATE; DIV ACE: 4500; 4500ATE; 4500ACE; DJ	black w/ gold ivory w/ gold	PM4037DE	
UV-15/2400Q; UV-15/2000Q; XUV/4500Q; XSV/3000; XSV/4000; XSV/5000; XSV-5000-U	D4000; D3000; D2400Q; D2000Q; D5000; D4500Q	black w/ gold; black w/ silver; white w/gold	PM4055DQ	

#44

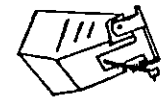
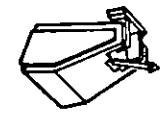
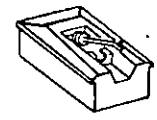
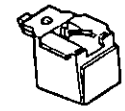
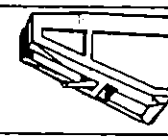
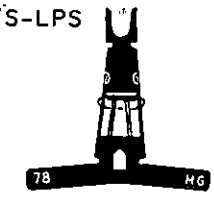
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR PICKERING CARTRIDGES (CONT'D)				
V-15/AC-3	DAC3; D1507/AC3	gray w/ silver	PM4029D ●	
V-15/AT-3; FG-3; V-15H/AT-3; V-15/AM-3; V-15HB/AT-2-3; V-15HB/AT2-3	DAT3; D1507AT3; DAM3; D1510-3; D1507AM3	gray w/ silver	PM4027D ●	
V-15/ACE-3	DACE3; D1500ACE3	gray w/ silver	PM4028DE ⬬	
V-15/ATE-3; V-15/AME-3	DATE3; D1500ATE3; DAME3; D1500AME3	gray w/ silver	PM4025DE ⬬	#43
TLC	DLC	white	PM4022D ●	
		black	PM4023DE ⬬	#129
303	304; 305	lt. blue	PM4056D2 ●	#7
313	D3107; S3110	gray	PM4057D2 ●	 #48
340D	D340; S3407	yellow	PM4058D2 ●	#49

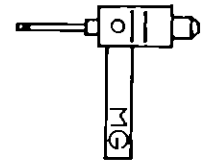
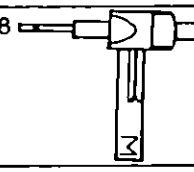
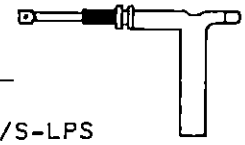
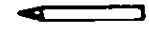
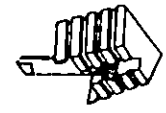
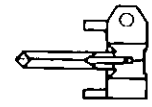
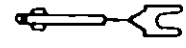
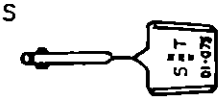
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR PIEZO CARTRIDGES					
950	Y-950	white	PM2834D	●	 #61
YM-308; YM308/II	AN-308; AN-308/II	black; yellow	PM2890D	●	
YM-308E; YM-308/IIX	AN308E; AN308/IIX	black; red	PM2891DE	⬬	#17
SC-501, Y201, SC503, CALRAD, VARCO, VICTOR	ST-7, ST7-D		2829D	D-LPS	
CS-1007S Etc.	DTS-2, STS-2		2835DS	D-LPS/S-78	
MS-2 Hi-Fi, MS-2, MS-2R, MS-2S, MT-, 2H1, 2R, 2S, 14, 14R, 14V, SMT 18, 19, 36, 37	1-31-1 1-32-1		3009 3009D	S-LPS D-LPS	
FOR PIONEER CARTRIDGES					
PL-C6; PL-C7	PL-N6; PL-N7	white; ivory; gray	PM2834D	●	 #61
PL-C9	PL-N9	white; lt. gray	PM2861D	●	#68
PC-12; PC-10; PC-150	PN-12; PN-110; PN-110II; PN-150	black; blue; yellow; red	PM2869D	●	#92
PC-30; PC-50	PN-30; PN-50	rose; lt. violet	PM2864D	●	 #69

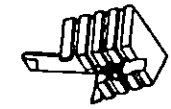
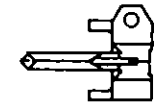
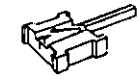
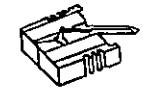
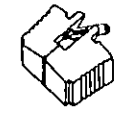
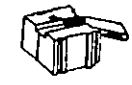
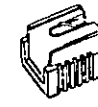
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR PIONEER CARTRIDGES (CONT'D)					
PC-35	PN-35	yellow	PM2863D	●	#73
PC-K65; PL-110 PL-130; MX-40	PN-K65	white	PM2870D	●	 #93
		blue	PM3203D	●	 #142
PC-200; PC-400; PC-600	PN-200; PN-400; PN-600; PN-800	green; yellow	PM2871D	●	#94
PC-135; PC-155; PC-145	PN-135; PN-155 PN-145	black	PM2872D	●	#115
PC-220	PN-220	gray; red yellow; white	PM2298D	●	 #26
PC-230	PN-230	green; yellow	PM2312D	●	 #114
PC-250T PC-295T;-305T	PN-250T PN-295T,-30T	white; black	PM2315D	●	#83
PC-290	PN-290T	white	PM2873D	●	 #140
FOR RCA CARTRIDGES					
RMP-200-8, -9, 106770B, 106771B, 110021, 110021A, 110023, 111209, 111338, 111347, 11348, 115062, 115196, E-V 54, 133, 195 Stereo,RMP-200,-2,-3,-4,-6,-7, 106770A, 106771A, 106960A, 108213A, 108214A	110020, 110020A 110022, 110022A 108214, 108214A, 108800, 108215, 108215A, 108216		2907DS	D-LPS/S-LPS	

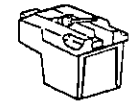
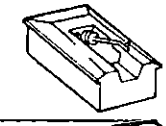
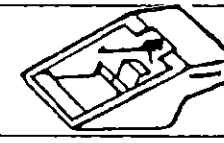
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR RCA CARTRIDGES (CONT'D)				
112124, 126316, 115276, 115277, 115302, 115303, 115346, 115347, 115703, 116931, 116932, 117330, 117331, 118055, 118056, 122123, 126317, RMP-204-1,-1C,-5,-6,-9.	115328, 115329, 115911, 118197, 118198, 118199, 118200, 130398,		2912DS	D-LPS/S-LPS 
115703, 120695, 126316, 126317, 126672, 128393 133499, RMP-204-15, -17 RMP-205-2	122057 126566, 126567		2915DS	D-LPS/S-78 
1311777, 131778, 132026, 132027, 133706, 133750, 135273, 138262	131781, 133625 132087, 133856		2917D	D-LPS 
131777, 131779	131780, 133707		2918DS	D-LPS/S-LPS
14820, 30708, 31050, 31156, 32256, 32632, 33122, 33217, 33905, 34225, 34307, 34710, 35171, 37158, 39686, 55391, 57330, 70198, 70220, 70777, 71173, 79850, 79895			3805	STEEL 
ROCK-OLA				
424; 425; 426; 429; 433; 440	40461	black	PM3115D	 #54
436; 437; 440; 442; 444; 446	43469	lt. blue	PM3123D	 #51
FOR RONETTE CARTRIDGES				
SERIES 70; 74; 76; 80;86;118;120;124; 310;312;414;416; 420;422;424;426. ALL RONETTE FONOFLUID & COLLARO STUDIO O & P	SERIES 5304&D5305 BSR TC8G,8TS ASTATIC N7-7D,-7S N8-7D, -7S		3009 3009D	S-LPS D-LPS 
SERIES 105; 106; 208;BF-40;DC-422; DC-500;SCW-395	DA-100, -700; DI-100, -075ST SA-075ST, -700		3005D	D-LPS 

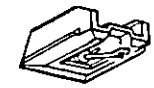
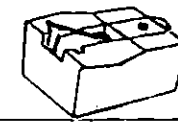
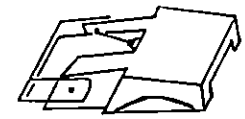
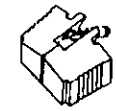
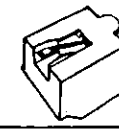
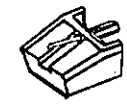
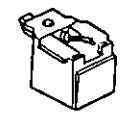
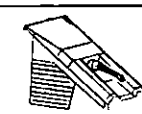
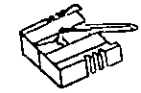
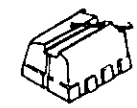
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
		FOR ROWE CARTRIDGES			
L; M; N; O	----	black	PM3115D	●	 #54
MM-1 thru MM-6 TI-1; TI-2; R-80 thru R-83	218340-01	lt. blue	PM3123D	●	 #51
		FOR SANSUI CARTRIDGES			
MODELS: APS-10; APS-110;APS-112; APS-115;APS-400	ST-1		2829D 3009D	D-LPS D-PLS	
APS-1200; SC-31; APS-1400; SC-32; SR-2026; SR-3030	SN-31; ST-3200; V-3030	white	PM3060D	●	#75
MCI-5	SN-25	gray; white	PM3089D	●	 #100
MC-6S	SN-26	yellow; brown	PM3090D	●	 #101
AT-6	SN-22; ST-6D SN-21	white; gray	PM2834D	●	 #61
SV-10A; SV-10	SN-10; SN-10M; SN-10A	black; white; blue gray	PM3088D	●	#99
AT-21	SN-24; ST-9D	white; lt. gray	PM2848D	●	 #64
SV-27	SN-27	black	PM3091D	●	#102
SV-28; SC-37	SN-28; SN-37	white; gray; black	PM3092D	●	 #103

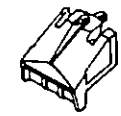
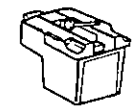
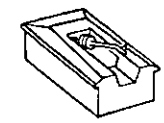
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE	
FOR SANSUI CARTRIDGES (CONT'D)						
SV-29	SN-29	blue; red	PM3112D	●		#84
SV-33; SV-50	SN-33; SN-50	brown; gray; orange	PM2305D	●		#65
SV-34	SN-34	green; blue; yellow	PM3101D	●		#112
SV-36; SV-42	SN-36; SN-42	green; white	PM3093D	●		#104
SC-43	SN-43	red; yellow	PM2276D	●		
SV-40X	SN-40X	white; gray	PM2280DQ	◗		#11
SV-45	SN-45	black	PM2308D	●		#79
SC-80	SN-80	red	PM3094D	●		#105
SV-101	SN-101	yellow	PM2295D	●		#21
SV-202	SN-202	yellow	PM2298D	●		#26
SV-303	SN-303	black	PM2317D	●		#144
SV-P-313; SV-P-515	SN-P313; SN-P515	white; black	PM2315D	●		#83

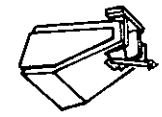
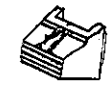
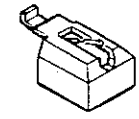
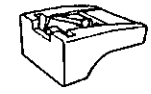
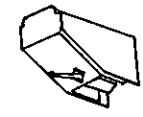
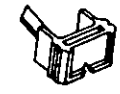
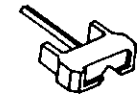
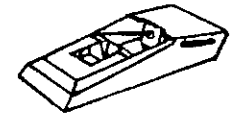
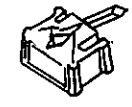
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE	
FOR SANSUI CARTRIDGES (CONT'D)						
SV-505	SN-505	gray	PM3103D	●		#119
SV-707	SN-707	blue	PM3104D	●		#148
FOR SANYO CARTRIDGES (ALSO FISHER)						
MG-A1SD	ST-A1SD	yellow; orange	PM2284DE	⬬		#12
MG-2	ST-5D	gray; green; white	PM3089D	●		#100
MG-3	ST-12D; V-09	white; gray	PM2834D	●		#61
MGT-5	ST-14D	blue; white	PM3204D	●		#138
MG-9G; MG-10 MC-710	ST-G9; ST-G10	yellow; brown; blue red	PM3095D	●		#106
MG-10J; MG-43	ST-10J; ST-43D ST-11D	black	PM2308D	●		#79
MG-L5D	ST-L5D	blue; gray	PM2312D	●		#114
MG-M11; MG-44J	ST-M11; ST-44J TP-F8	gray;white black;blue	PM2315D	●		#83
MG-15; MG-15G; MG-15L	ST-15D; ST-15GD; ST-15LD	yellow; brown; white	PM3090D	●		#101
MG-25J	ST-25J	white	PM2305D	●		#65

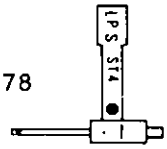
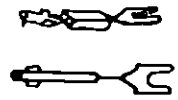
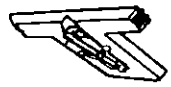
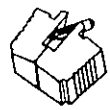
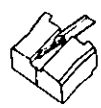
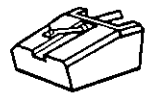
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR SANYO CARTRIDGES (ALSO FISHER) (CONT'D)				
MG-25; MG-25L	ST-25D	blue; yellow	PM3208D	
MG-31J; MG-40X	ST-31J; ST-40X	brown; translucent red	PM3209DE	#139
MG-26; MG-26L; MG-36; MG-45X	ST-26D; ST-26DL; ST-36D; ST-45DX	orange; blue; black	PM3116D	 #122
MG-26J	ST-26J	gray; brown	PM2294D	
MG-63D	ST-63D	blue; green	PM2296DE	 #21
MG-27; MG-27DL	ST-27; ST-27DL	blue; black	PM3112D	#84
MG-28	ST-28D	red	PM3061D	#72
MG-29D	MT-100; MT-35; ST-29D	red	PM3102D	#118
MG-34D; G-2002; G-3002	ST-34D; ST-G8	red	PM3096D	#107
MG-35D; MG-41J; MG-55D	ST-35D; ST-41J; ST-42D; ST-55D; T.T.MC-720,-725, -730,-740	red; gray; yellow	PM2298D	 #26
MG-35V; MG-36V	ST-35VD; ST-36VD	red; gray	PM2275D	
MG-A3	ST-A3D	brown	PM2280DQ	#11

NOTE: Drawings not to actual size.

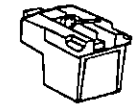
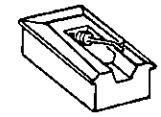
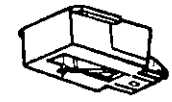
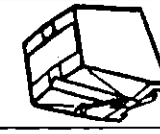
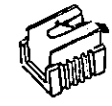
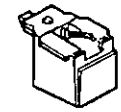
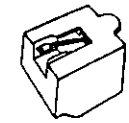
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE	
FOR SANYO CARTRIDGES (ALSO FISHER) (CONT'D)						
MG-37D	ST-37D; ST-37LD	blue	PM3203D	●		#142
MG-38D	ST-38D	black	PM3097D	●		#108
MG-41	ST-41D; ST-41ZD	gray; red; orange; blue; black	PM2306D	●		#77
MG-44	ST-44D	black	PM3098D	●		#109
		white	PM2854D	●		#80
MG-53	ST-53D; ST-38VD ST-53ZD	brown; yellow	PM2304D	●		#23
MG-66D	ST-66D	red	PM3199D	●		#141
M-91ED	SH-91ED	yellow	PM3136DE	⬬		#53
M-91GD	SH-91GD	red	PM3128D	●		#52
MG-100S	ST-100SD	black	PM3100DE	⬬		#111
MG-102	ST-102SD	black	PM3210D	●		#143
MG-107; MG-48	ST-107D; ST-48D	gray; lt. green	PM3099D	●		#110

NOTE: Drawings not to actual size.

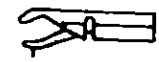
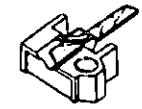
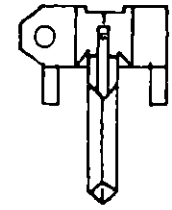
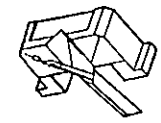
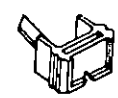
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR SANYO CARTRIDGES (ALSO FISHER) (CONT'D)					
40T,-V;41G;CZ-200; CX-202-1,-2-3	ST-3,-3D		2421DS	D-LPS/S-78	
36A,B,C,D,F,K; 58B,C,G,J; 59A;STL-440	STL-1,-1D		2829D 3009D	D-LPS D-LPS	
RS-07260	ST-6G		2481D	D-LPS	
FOR SEEBURG CARTRIDGES					
V-200	246788; 246797	lt. blue	PM4056D2	●	#7
370	249731; 252710	gray; blue	PM4057D2	●	 #48
SHOWCASE (two sapphires)	253772	purple	PM4058S2		
SHOWCASE (two diamonds)	253719; 253722	yellow	PM4058D2	●	
SHOWCASE (one each sapphire & diamond)	253719; 253772	purple; yellow	PM4059DS2	●	#49
SEEBURG jukebox styli are 2 per package					
FOR SHARP CARTRIDGES					
C-91D	N-05; N-06	white; gray	PM2834D	●	 #61
C-93D; C-93E	N-17D	yellow; green; gray	PM2848D	●	 #64
	STY-143	yellow; brown; red	PM3095D	●	 #106

NOTE: Drawings not to actual size.

FOR SHARP CARTRIDGES (CONT'D)

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
C-95D; OPT-1	N-20D; STY-202	white; gray	PM2275D	●	
OPT-2; C-703	STY-213; STY-703	green; red	PM2277DE	⬬	#11
CART-105	STY-105; STY-115	blue; yellow; gray	PM2294D	●	 #21
CART-116	STY-116	orange-red	PM3078D	●	#98
CART-118	STY-118; STY-130	gray; red; black	PM2298D	●	 #26
LINEAR TRACK TURNTABLE; CART-121	STY-121	black	PM3077D	●	#97
CART-124	STY-124	black	PM2318D	●	 #145
CART-127	STY-127	black; red; white	PM3064D	●	 #149
CART-104; CART-114; CART-122	STY-104; STY-114; STY-122	white; gray; beige; black; dk. blue	PM3092D	●	 #103
CART-123; CART-138	STY-123; STY-138 STY-140;-141;-142	black; gray; yellow; blue	PM2312D	●	 #114
CART-131	STY-131	white; gray	PM2315D	●	#83
PU-704	STY-704	blue; white	PM3204D	●	 #138

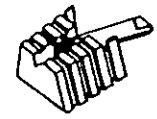
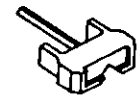
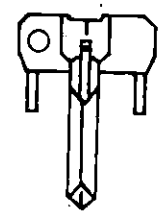
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR SHARP CARTRIDGES (CONT'D)					
CART-705; 4C2	STY-705; 4N2	orange; blue	PM3116D	●	#122
CART-750	STY-750	green; blue; yellow	PM3101D	●	#112
PU-752; CART-751; CART-752	STY-751; STY-752	green; red; blue; white	PM2775D	●	#86
SHURE CARTRIDGES					
M3D; M7D; M7DM; M7DMF; M8D; M22 M3/N21D; M21; M7/N21D;	N3D; N7D; N8D N21D; N22D	silver; gold	PM3118D	●	 #10
M44-7; M44MB; M44MG; M98A	N44-5; N44-7; N44MA; N44MG	white; red; gray	PM3117D	●	
M44MC; M44C; M98A; M80	N44C; N44-1	lt. blue dk. blue	PM3123D	●	
M44E; M44EM; 24-0044	N44E; N44E-M	brown; yellow	PM3124DE	⬬	
M55E; M55EM; M80E; M80E-D; M80E-D19; AMC50E	N55E; N80E	yellow	PM3125DE	⬬	#51
M70B; M72B	N70B; N72B	beige	PM3158D	●	
M70EJ; M72EJ; M110E; ME910EJ	N70EJ; N72EJ	lt. green	PM3157DE	⬬	#55
M93E	N93E	lt. green	PM3139DE	⬬	
M91E; M91ED; M92EJ; M91E-50H; DM103ME; M91E-D12; R1000E; M91E-GLS; M91E-P20; M92E; AV400-HTE; HT9ES; RM900E; WC975; A90MED	N91E; N91ED; N92E	black; yellow; gray	PM3136DE	⬬	 #53

NOTE: Drawings not to actual size.

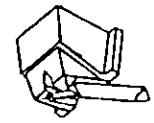
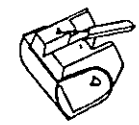
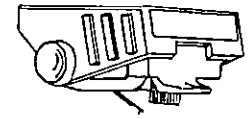
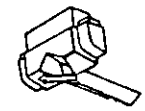
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE

SHURE CARTRIDGES (CONT'D)

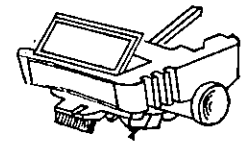
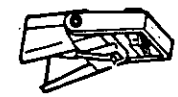
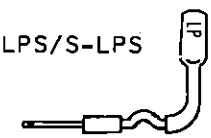
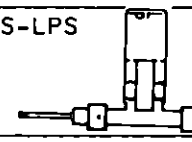
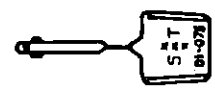
M33-5; M33-7; M77; M77D; M77MD; M77DA; M77DB; M99; M99/A; M99/AT6; M99/M10	N77; N99; N33-7; RMC-JUKE BOX	black; gray	PM3115D	 #54
M71C; M71HCS; M71MC; M75CS; M75MC; M81MC; M81SC; RM930C; AV200C R7C; M74CS; M74CSM; M74CSZ	N71C; N75C; N75CM; NC71 N74C; N74CZ	lt. blue dk. blue; white	PM3143D	
M-71-6; M71MB; M71MBD; M73; M73G; M73MG; M75B Type 2; M75MB; M75MB Type 2; M75MG Type 2; M75MG; M75MGD; M75 Type D; M75G; M75G Type 2; M75-6; M75-6S; M75-6 Type 2; M91G; M91GD; M91MGD; M92G; DM101MG	BT2; GT2; NB71-6; N75G; N75G Type 2; N75G-T2; N75-6; N75-6 Type 2; N75B Type 2; N91G; N91GD; N92G; N6-T2	beige; gray; dk. gray; red	PM3128D	
M71EB; M71EMB: M75ECS; M75EJ Type 2; M81CS; P4EJ; R25EC; R47EB; RM910E; A96ME; M112EJ	N75EC; N75EJ Type 2; EJ-T2; NEB71; N75EJ	lt. green; brown	PM3144DE	
M75E; M75E Type 2; M75E-D19; M75-D19 Type 2; M75ED Type 2; M75EM; M75EM Type 2; M75E-P20 Type 2; M75E-95G; M75E-95G Type 2; DU10-M75E Type 2; SL-95M75E Type 2; M73PED; Phase 1000-4; R27E; R700E; R1000ED; R1000EDT; AA92E; EM97EE; ETS-109E; HTE; V15 Type II-7; V15II-7; V15 Type II; V15 II-D12; V15 Type 2 Improved; M75HE; M75HEJ-Type II	RS-8T; RS-27E; ED-T2; N75E; N75ED Type 2; VN7; VN15E; N75HE; N75HEJ	black; gray; yellow	PM3127DE	#52

NOTE: Drawings not to actual size.

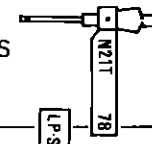
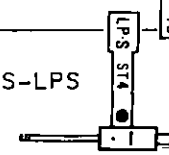
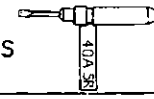
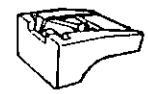
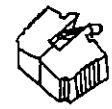
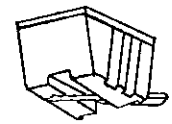
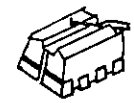
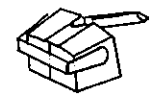
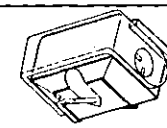
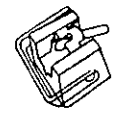
SHURE CARTRIDGES (CONT'D)

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
SC35C	SS35C	lt. blue	PM3148D	 #56
M105E	N105E	black	PM3175DE	#131
SPS-1; SPS-2; CA-1; CA-2	N11; N12; NPS-1; NPS-2	brown; orange; gray	PM3164DE	
SPS-3; SPS-4; CA-3; CA-4	N13; N14; NPS-3; NPS-4	tan; blue	PM3165DE	
SPS-5; CA-5	N15; NPS-5	green	PM3166DQ	#57
V15/Type III G	VN3G	gray	PM3145D	
V15/Type III; M24H; V15/Type IIIHE	VN35E; N24H; VN35HE	black; beige; gold	PM3146DE	#58
V15/IV-G	VN4G	black	PM3161D	
V15/IV	VN45E	black	PM3160DE	
V15/IVHE	VN4G; VN45HE	black	PM3162DQ	#60
M95EJ	N95EJ	lt. green	PM3156DE	
M95ED; M95G; M98ED Type 2; M95HE	N95ED; N95G; N95HE	yellow; gray; black	PM3155DE	#59
M92LT; M94LT; M96LT (P-Mount); L-TP2	N92LT; N94LT; N96LT	brown; blue; yellow	PM3171D	
M97LT (P-Mount); V15LT	N97LT; VN45LT	red; black	PM3172DE	 #120

NOTE: Drawings not to actual size.

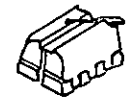
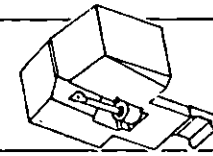
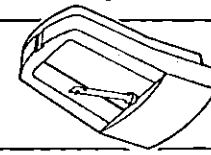
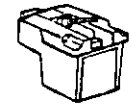
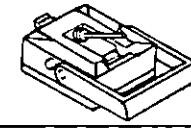
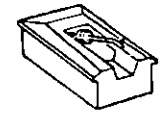
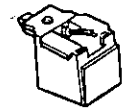
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
SHURE CARTRIDGES (CONT'D)				
M97B; M97GD	N97B; N97GD	black	PM3167D	
M97EJ M97ED	N97EJ RS-9E N97ED RXT-4	black	PM3168DE	
M97HE	N97HE	black	PM3170DQ	#50
M92	N92	red	PM3173D	
M99E; M104E; M110HE; M92E; ME75P; ME94P; ME96P	N99E; N104E; N110HE; N92E	blue; red; yellow; white; gray	PM3174DE	#130
ML120HE; ML140HE	N120HE; N140HE	black	PM3176DQ	 #132
DESIGNER SERIES	NDC-EJ; NDC-ED; NDC-HE	black	PM3177DE	#133
FOR SONOTONE CARTRIDGES				
W-9980,2T Series, 2TA Series, 5T Series, 7T Series	N2T-S, -SD; N2TA-S, -SD; N5T-S, -SD; N7T-S, -SD		3201DS	D-LPS/S-LPS 
8T Series 8TA Series	N8TA-S, -SD, -S77D; N8T-SD, -S		3213DS	D-LPS/S-LPS
9T, 9TA Series; 16T Series; 916TA Series	N9T-S, -D77, -S77; N16T-S, -S77, -SD77; N9916-S, -S77, -SD77		3214DS	D-LPS/S-LPS 
14T, -s, 14TLBS; 15T,-S, 15TLBS	N14T-D1, N-14TH-1D; N15T-1D		3005D	D-LPS 

NOTE: Drawings not to actual size.

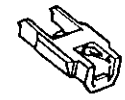
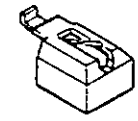
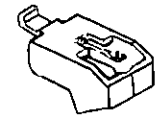
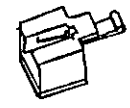
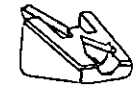
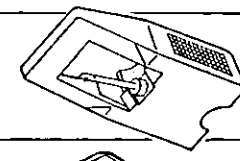
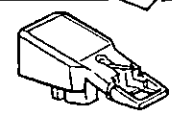
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR SONOTONE CARTRIDGES(CONT'D)				
21T, 22T, 23T, 24T, 31T, 35T, 43T Series	N-21T-SD, -S; N35T-SD, -S		3224DS	D-LPS/S-LPS 
51T, 52T, 54T, 60T, 61T, 65T, 66T Series	MS, MS77, MSD, MSD7		2421DS	D-LPS/S-LPS 
3509, 3549, 3559	AD AS		3233DS	D-LPS/S-LPS 
FOR SONY CARTRIDGES				
VL-5; VL-7E	ND-5G; ND-7E	blue; yellow	PM2304D ●	 #23
VM-9P; VM-98	ND-113P	white; gray	PM2834D ●	 #61
VM-10P; VM-11G; VM-15P; VX-15P	ND-114P; ND-115G; ND-117P	black; red; orange; pink	PM2844D ●	 #63
NS-12; VM-21P	ND-124P; ND-125G; ND-125P	black; red; yellow; orange	PM2472D ●	 #65
VL-14GS	ND-14G	red	PM3079D ●	 #66
XL-15; XL-25E	ND-15G; ND-25E	red	PM2867D ●	 #90
VX-17P; VX-18P	ND-120P; ND-119P	green; red	PM2836D ●	#20
VL-20G	ND-220G	red	PM2879D ●	 #135
XL-20; XL-20G; XL-30	ND-200E; ND-200G; ND-30E	blue	PM2865D ●	#88

NOTE: Drawings not to actual size.

FOR SONY CARTRIDGES (CONT'D)

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
VM-22G; VM-22P; VM-26GA; VM-1200G	ND-132GA; ND-126G; GA; ND-126P; ND-131G;	blue; green; black	PM2305D	 #65
VX-23P	ND-127; ND127P	red	PM2650D	 8
VM-25G	ND-129G	green; yellow	PM2276D	
VM-25G; CD-4	ND-130G; ND-130E	white; ivory	PM2280DQ	#11
VM-27G	ND-135G	white; red; orange	PM2307D	#78
VL-30G; VL-32G; VM-32G	ND-133G; ND-134G	green; red; yellow; orange	PM2840D	 #18
VL-33G; VL-36G	ND-136G	orange; red	PM2294D	 #21
VL-37G	ND-137G	yellow	PM2852D	 #25
VL-38GSA	ND-138G ND-147G	orange; red; gray	PM2298D	 #26
VL-42G	ND-142G,-GP	yellow; pink	PM2312D	
	ND-142EP;EY	yellow; pink; green	PM2322DE	#114

NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE	
FOR SONY CARTRIDGES (CONT'D)						
VL43GS	ND-143G	blue	PM2979D	●		#137
VL-44GA	ND-144G	black; purple	PM2314DE	⬬		#82
VL-45G	ND-145G	gray; white	PM2315D	●		#83
VX-46P	ND-146P	white	PM2854D	●		#80
VX-50	ND-50	orange	PM2881D	●		#136
VX-60G	ND-60G	red	PM2853D	●		#76
XL-70; XL-50	ND-70X; ND-50X	red; orange	PM2866D	●		#89
VL-100	ND-100G	green	PM2843D	●		#19
VL-141G	ND-141G	wine red	PM2319D	●		#150
VX-108; VM-8GS	ND-108G	green; red	PM2775D	●		#86
XL-150	ND-150G	red	PM2878D	●		134

NOTE: Drawings not to actual size.

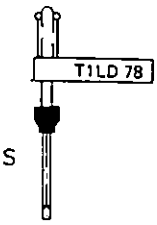
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
	FOR STANTON CARTRIDGES			
500AA; 500A; 500AL	D5105AA; D5107A; D5107AL; D5110	black w/ color dots	PM4202D	
500EE; 500E	D5100EE; D5100E; D5; D51	black w/ gold or red dot	PM4204DE	#46
600A	D6010; D6071A	black	PM4219D	
600E; 600EE	D6004E; D6003EE; D6; D61;D62	black	PM4208DE	#45
681A	D6807A; D6810	black w/ silver or green dot	PM4211D	
681EE; 681SE; 680EL; 680EE	D6800EE; D6800SE D680; D6800EL; D65	black w/ silver or red ellipse	PM4212DE	
681EEE	D6800EEE	black w/ silver	PM4216DE	
681EEE (S-Type); 780/Q; 780/4DQ	D6800EEE-S; 4DQ; Q; 7800-4DQ	black	PM4217DQ	#47
		white	PM4022D	
L720EE	D-71EE	black	PM4023DE	#129
	FOR TENOREL CARTRIDGES			
T-2001D	N-2001D	white	PM2000D	#113

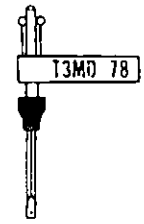
NOTE: Drawings not to actual size.

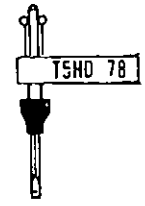
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE

FOR TETRAD CARTRIDGES

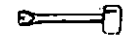
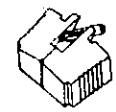
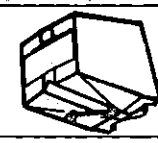
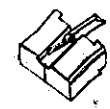
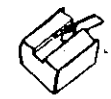
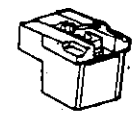
Cartridges having these numbers stamped on the needle handle:	10, 10S, 11, 11S, 12, 12S, 13, 13S, 14, 14S, 30, 30S, 31, 31S, 32, 32S, 33, 33S, 34, 34S, 71, 71S, 73, 73S, 74, 74S, 80, 80S, 90, 90S, 93, 93S, 110, 110S, G0, GAS, G1S, G2S, G3S, T1LS, T10LS		3391	S-LPS/S-LPS
	10D, 11D, 12D, 13D, 14D, 30D, 31D, 32D, 33D, 34D, 71D, 73D, 74D, 80D, 90D, 93D, 110D, G0D, G1D, G2D, G3D T1LD, T10LD, TZ1D, TC12M6/T2MD, TC12M0/T20MD, TC12M1/T2MD		3391DS	D-LPS/S-LPS
	20, 20S, 21, 21S, 22, 22S, 23, 23S, 40, 40S, 41, 41S, 42, 42S, 43, 43S, 44, 44S, C0, C05, C1, C1S, C2, C2S, C3, C3S, E1, E1S, E2, E2S, T3MS		3393	S-LPS/S-LPS
	20D, 21D, 22D, 23D, 40D, 41D, 42D, 43D, 44D, C0D, C1D, C2D, C3D, E1D, E2D, T3MD TC11M0/T30MD, TCHM1/T30MD		3393DS	D-LPS/S-LPS
	51, 51S, 52, 52S, 53, 53S, 54, 54S, 61, 61S, 62, 62S, 63, 63S, 64, 64S, A1, A1S, A2, A2S, A3, A3S, B0, B0S, B1, B1S, B2, B2S, B3, B3S, K1 K1S, T5HS		3395	S-LPS/S-LPS
	51D, 52D, 53D, 54D, 61D, 62D, 63D, 64D, A1D, A2D, A3D, B0D, B1D, B2D, B3D, K1D, T5HD, T50HD, T50HS, TC12H0/T5HD, TC12H1/T50HD		3395DS	D-LPS/S-LPS



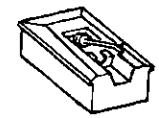
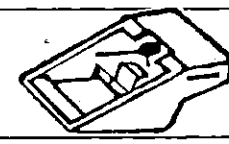
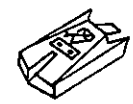
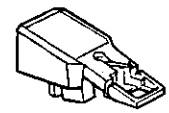
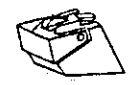
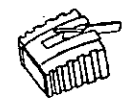
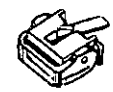
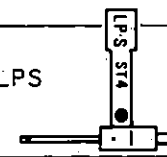
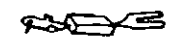
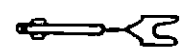




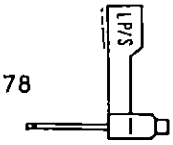
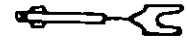
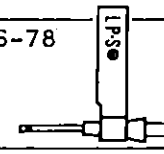
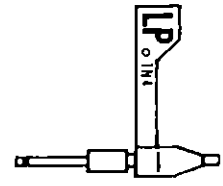
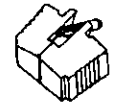
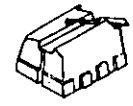
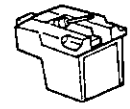
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR THOMSON CARTRIDGES					
STC-1000D	STC-1000, 9-058-004		2479D	D-LPS	
FOR TOSHIBA CARTRIDGES					
C-07M	NN-4CS; NN-4D	white; gray	PM2834D	●	 #61
C-20	N-272; N-292	black; red; white	PM3064D	●	 #149
C-22C	N-11C; N-14C	blue; white	PM3204D	●	#138
C-26M	NN-12C; NN-12D	lt. gray; green	PM2848D	●	 #64
C-27M	N-13D; NN-13C	white	PM2305D	●	 #65
C-29M; C-53M; C-35M	N-14DY; N-53DY	red; white; gray	PM2275D	●	
C-52M	N-52DY	yellow	PM2276D	●	
C-59M	N-59DY	blue	PM2277DE	⬬	#11
C-32M	N-32D	red; white	PM2315D	●	#83
C-56M	N-56DY	gray	PM2294D	●	
C-55M; C-57M	N-55DY; N-57DY	gray; green; yellow	PM2295D	●	 #21

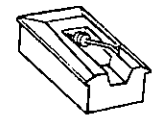
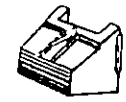
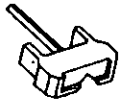
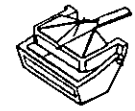
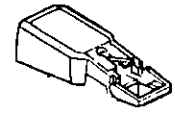
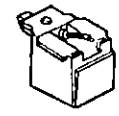
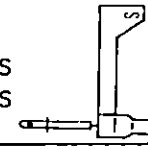
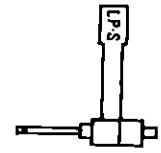
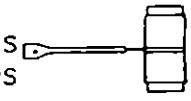
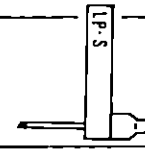
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR TOSHIBA CARTRIDGES (CONT'D)					
C-50M; C-51M	N-50D; N-51D	red	PM3102D	●	#118
C-60M	N-60DY N-71D;N-293DY	white;red yellow;gray	PM2298D	●	 #26
C-64M	N-64; N-66	maroon; red	PM2868D	●	#91
N-72D	C-72M	black	PM2317D	●	 #144
C-74M; C-75M	N-74C; N-75C	black	PM2938D	●	 #147
C-80	N-80	wine red	PM2319D	●	 #150
C-160M	N-160	orange; red	PM3078D	●	 #98
C-220M	N-220M	green	PM3093D	●	 #104
C-210M; C-230M	N-210M; N-210C; N-210CEX	blue; red; white	PM3112D	●	 #84
C-250M; C-260M	N-250; N-260	green; red; black	PM2775D	●	#86
MODEL GP-44F			2421DS	D-LPS/S-LPS	
N-09C;N-14C;N-19C N-050;N-080; TP102;TP-125	N-2C;N-6C;TP-102L; TP-102S;TP-106L;TP-114ST		2829D 3009D	D-LPS D-LPS	 

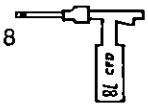
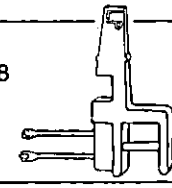
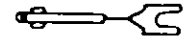
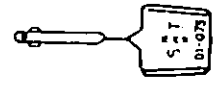
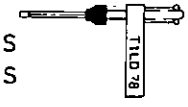
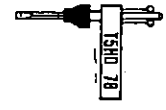
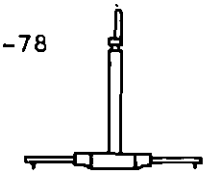
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR TOSHIBA CARTRIDGES (CONT'D)					
C-03C;C-10C	N-3CB,-3DB		2835DS	D-LPS/S-78	
FOR VARCO CARTRIDGES					
SC-501, Y201, ST-4, ST-40, STP-2 CALRAD, VARCO, VICTOR	ST-7		2829D	D-LPS	
SN-45, SN-45D ST-2 Series, ST-4 Series, ST-20, ST-40, S-45 ST-100, ST-200, TN-5, TO-35X, T-45, TO-45, T-55	NBS-12-DLP,-12-S,-12-SLP; NBS-13-SLP;NBS-14DLP; ST-40LP, -40ST, SS-L; TO-L, -N,-S.		3009	S-LPS	
			3009D	D-LPS	
TN-02, TN-02D, TN-02H, TN-2HD, TN-02M, TN-02MD	LPS-D, NTO-9-DS, LPS, TN, NTO-9-SS		3330DS	D-LPS/S-78	
N60, CN62, CN65, CN67, CN68, CN70, CN72, CN73, CN75, CN75-3, TMS TN4A, TN4AD, TN4B, TN4BD	CN,NTO-11-SS;CN-D;NTO-11-DS NTO-7-DS,-7-SS;NTO-10-7S,-10-SS; S-TN4;TN-4;TN-5;4AD;4AS;D-TN4.		3332DS	D-LPS/S-LPS	
TN8T, TN8TD, TN8U, TN8TD GL2-N5D, S-5D, TN-16D	N5D;NTO-8-DS,-8-SS TN8D; TN8S.				
FOR YAMAHA CARTRIDGES					
CG-3000	N-3000	white	PM2834D	●	 #61
CG-5000	N-5000	white; gray	PM2472D	●	 #65
CG-5500	N-5500	white; gray	PM2848D	●	#64
CG-6500	N-6500	gray	PM2275D	●	#11
CG-6600S	N-6600S N-6600	gray; orange	PM2294D	●	 #21

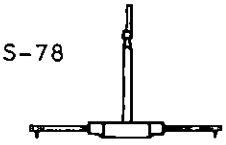
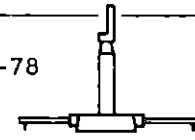
NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #		TIP/FIGURE STYLE
FOR YAMAHA CARTRIDGES (CONT'D)					
CG-6700; YPC-1	N-6700; N-6900	gray	PM2298D	●	 #26
CG-6800	N-6800	gray; black; orange; red	PM2306D	●	 #77
CG-4500 II	N4500 II	white; red; black	PM2307D	●	#78
M-75BM/II	SH-N-75B	beige	PM3128D	●	 #52
V15/III	SH-VN-35E	black	PM3146DE	⬬	 #58
CG-7050 CG-7080	N-7050 N-7080	black	PM2319D	●	 #150
CG-7700, -7800	N-7700, N-7800	orange;red gray	PM2312D	●	
CG-7900	N-7900	green	PM2322DE	⬬	#114
FOR ZENITH CARTRIDGES					
142-144; 142-145; 142-148; 142-149; 142-156	56-518; 56-519; 56-528; 56-531; 56-532.		2123 2123DS	S-LPS/S-LPS D-LPS/S-LPS	
142-165, -165B; 142-170B; 142-171B;942-53;942-54; 942-63;942-64	56-557; 56-566; 56-567B; 56-598		2424DS 2427DS	D-LPS/S-LPS D-LPS/S-LPS	
142-92; 142-93; 142-95; 142-117; 142-118	56-399; 56-400; 56-401		2604 2604D	S-LPS D-LPS	
142-155, 142-160, 942-48,	56-539 56-540		2622DS	D-LPS/S-LPS	

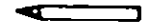
NOTE: Drawings not to actual size.

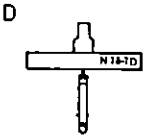
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR ZENITH CARTRIDGES(CONT'D)				
142-172	56-597		2625DS	D-LPS/S-78 
142-110B, 142-111B, 142-115	56-436B, 56-437B		2675D	D-LPS
142-121, 142-122, 142-123	56-465, 56-467		2677D	D-LPS
142-133, 142-134	56-495 56-496		2679DS	D-LPS/S-78 
142-47, 142-84, 142-85, 142-86B, 142-95, 142-96, 142-97, 142-124, 142-125, 142-161B,942-8B,942-44, 942-45,942-46, 942-60,942-62	56-371, 56-376B, 56-378B 56-545B 56-372, 56-377B 56-480 856-77		3009 3009D	S-LPS D-LPS 
142-98B, 142-99B, 142-101B, 142-107B, 142-113, 142-146B, 142-147B, 142-152B, 142-153B, 142-157,942-41	56-403B, 56-421B, 56-442, 56-442B, 56-406B 56-525		3005D	D-LPS 
142-164, 142-175, 142-185,800-330	56-560, 56-638		3391 3391DS	S-LPS/S-LPS D-LPS/S-LPS 
142-162	56-551		3393 3393DS	S-LPS/S-LPS D-LPS/S-LPS
142-154, 142-159 142-169	56-534, 56-535, 56-590, 56-591		3395 3395DS	S-LPS/S-LPS D-LPS/S-LPS 
142-126, 142-127, 142-128, 142-136, 142-137, 142-138, 142-140, 142-141, 142-142, 142-143	S-62648 S-62649, S-55805,		3452DS	D-LPS/S-78 

NOTE: Drawings not to actual size.

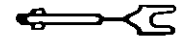
ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE
FOR ZENITH CARTRIDGES(CONT'D)				
142-150, 142-151, 142-163, 142-166, 142-168	S-68566, S-68567, S-75801		3454DS	D-LPS/S-78 
142-167	S-82621, S-83010		3456DS	D-LPS/S-78 
142-182	56-632		3458D	D-TRUN

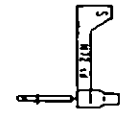
FOR THUMB SCREW AND SET SCREW CARTRIDGES

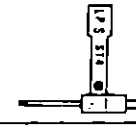
3805	Steel	3805, 25 per package 
DPC-23	Steel	50 Packages of 30 needles each.

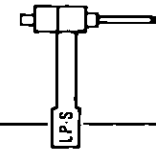
ECONOMY NEEDLE CARDS 12 NEEDLES TO A CARD 

#EN2.5 2127D DIAMOND
USED IN ASTATIC,GE,RCA,SEARS ETC.

#EN10 3009 SAPPHIRE STEREO
#EN15 3009D DIAMOND STEREO USED IN ASTATIC,BSR, PHONOGRAPHS 

#EN20 2123 SAPPHIRE DUAL TIP
#EN25 2123DS DIAMOND DUAL TIP
USED IN ASTATIC 140, 142, 146, 148, ETC. ALSO REPLACES 2120DS & 2127D 

#EN35 2421DS DIAMOND/SAPPHIRE DUAL TIP
USED IN BSR C-1(ST4,ST6), PANASONIC EPC35 & EPC71 

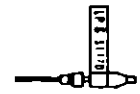
#EN45 2424DS DIAMOND/SAPPHIRE DUAL TIP
USED IN STERO & MONO BSR CARTRIDGES 

NOTE: Drawings not to actual size.

ORIGINAL CARTRIDGE #s	ORIGINAL NEEDLE #s	ORIGINAL COLORS	EVG NEEDLE #	TIP/FIGURE STYLE

ECONOMY NEEDLE CARDS (CONT'D) 12 NEEDLES TO A CARD

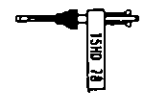
#EN55 2428DS DIAMOND/SAPPHIRE DUAL TIP
USED IN BSR SERIES SC7,SC8, & SC10. ALSO REPLACE 2429D



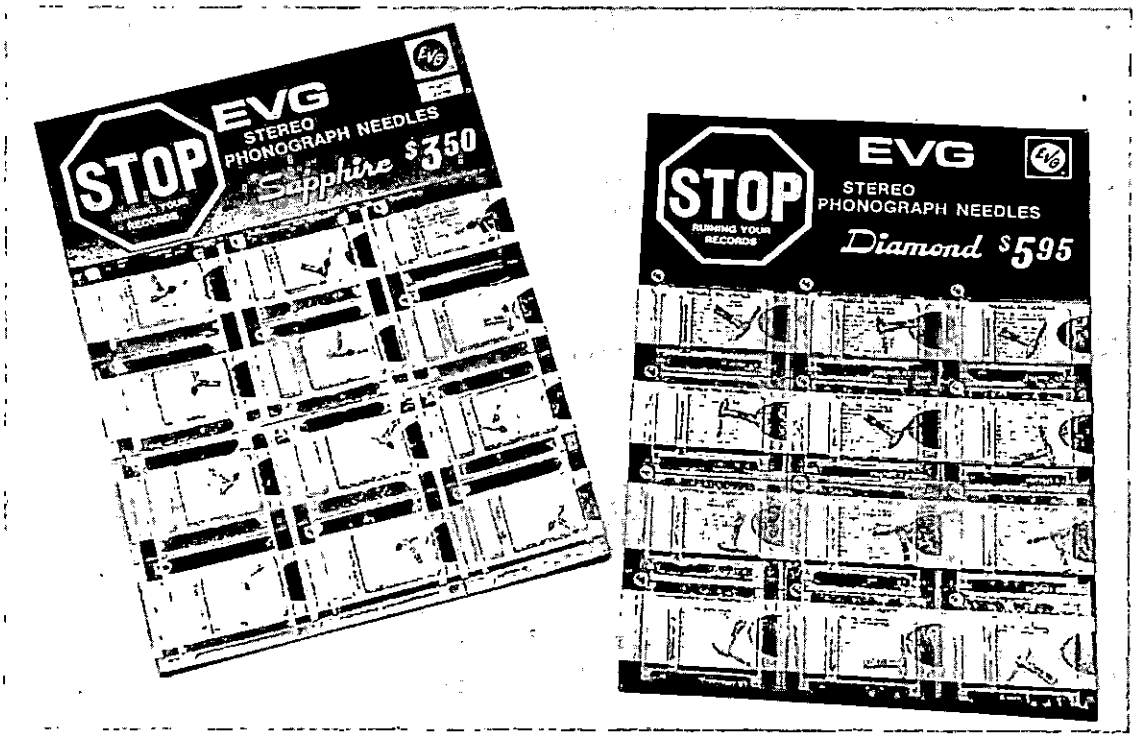
#EN80 3391 SAPPHIRE DUAL TIP
#EN85 3391DS DIAMOND/SAPPHIRE DUAL TIP
USED IN MAGNAVOX, MOTOROLA,BSR, TETRAD, ETC. VERY POPULAR

#EN90 3393 SAPPHIRE DUAL TIP
#EN95 3393DS DIAMOND/SAPPHIRE DUAL TIP
USED IN BSR,ARVIN,LLOYD'S,MOTOROLA,PHILCO,TETRAD,ETC. VERY POPULAR

#EN100 3395 SAPPHIRE DUAL TIP
#EN105 3395DS DIAMOND/SAPPHIRE DUAL TIP
USED IN ADMIRAL,BSR,ELECTRO-PHONICS,MORSE,MOTOROLA,PHILCO,TETRAD,ETC.



NOTE: Drawings not to actual size.



NEEDLE REPLACEMENTS

NLA	REPLACEMENT
2120DS	2123DS
2125DS	2130DS
2127D	2123DS
2135DS	NR
2221DE	PM2215DE
2228DE	PM2227DE
2229DQ	PM2237DQ
2231DS	NR
PM2235DE	PM2235DE
2236DE	PM2237DQ
2238DE	PM2237DQ
2283DQ	PM2282DQ
2286DE	PM2280DQ
2288D	PM2291D
2289DE	PM2292DE
2290DE	PM2293DE
2297DE	PM2296DE
PM2310DE	PM2311DE
2375DE	PM2380DE
2377DE	PM2389DE
2378DE	PM2383DQ
2379DE	PM2310DE
2381DQ	PM2383DQ
2382DQ	PM2383DQ
2386DE	PM2388DE
2387DE	PM2388DE
2393DE	PM2395DE
2397DE	PM2399DE
2404D	PM2401D
2405D	NR
2417DE	PM2407DE
2421	2421DS
2425DS	2424DS
2426DS	2421DS
2428	2428DS
2429D	2428DS
2430D	2427DS
2605	2604D
2619DS	2622DS
2632DS	2625DS
2633DS	2625DS
2640D	2644DS
2641DS	2636DS
2642DS	2636DS
2660D	PM2275D
2662D	PM2848D
2669D	PM2276D
2675D	NR

NLA	REPLACEMENT
PM2720D	PM2723DE
2728	NR
2733	2733D
2907	2907DS
2914D	2912DS
2916D	2915DS
2917D	2918DS
3000,3000D, 3001,3001D, 3002,3002D	3009,3009D
3005	3005D
PM3114D	PM3118D
3119D	PM3128D
3120D	PM3123D
3121D	NR
3122D	PM3117D
3126DE	PM3125DE
3129D	NR
3130DE	PM3127DE
3132D	PM3115D
3134D	NR
3140D	PM3127DE
3141DE	PM3144DE
3147DE	NR
3149DE	PM3146DE
3159D	NR
PM3163D	PM3143D
3206DS	NR
3214	3214DS
3331DS	3332DS
3334DS	3332DS
3336D	2481D
3392D	3391DS
3394D	3393DS
3396D	3395DS
3398DS	3391DS
3804	NR
4001D	PM4006D
4004D	PM4007D
4009D	PM4011D
4024DE	PM4025DE
4026D	PM4027D
4031D	NR
4032DE	PM4000DE
4033D	PM4006D
4034D	PM4007D
4035DE	PM4037DE

NLA	REPLACEMENT
4040D	PM4039D
4041D	PM4038D
4042D	NR
4043DE	PM4052DE
4053DQ	PM4055DQ
4054DQ	PM4055DQ
4056DE	PM4055DQ
4057DE	PM4052DE
4058D	PM4055DQ
4059DE	PM4036DE
4060DE	PM4036DE
4061DE	PM4036DE
4062DE	PM4036DE
4063DE	PM4044DE
4064D	PM4007D
4065DE	PM4044DE
4066D	PM4007D
4201D	PM4202D
4203DE	PM4204DE
4205D	PM4202D
4206D	NR
4207DE	PM4208DE
4209D	PM4219D
4210D	NR
4213DE	PM4212DE
4214D	PM4211D
4215D	NR
4218DQ	PM4217DQ
4220D	PM4217DQ
4221DE	PM4212DE

CARTRIDGE REPLACEMENTS

NLA	REPLACE BY
13	13A
26	26D
38	38A
51	56D
66D,76D,104	NR
132	149D
142,145	96
143	143D
149	149D
150	150D
158	158D
159,180,195, 238,242,247	NR
220	220D
257,257D	256D
272	NR
275	275D
5084D	5050D
5126,5127D,	5126D
5148	NR
5166D	275D
5178	5178D
5189D	5190D
5206	NR
5208,5209,5210	5126D
5215	146
5216	143D
5224D	NR
5241	NR
5303D	5634D**
5331	5333
5363	5363D

NLA	REPLACE BY
5445,5459	NR
5488D	5632D**
5540	5540D
5541	5344
5543	NR
5547	5548
5550	5549
5551	5549
5573,&D	5572D**
5584	5584D
5595	5595D
5610D,5613D	5572D**
5628D	5626D
5637D	5626D
5638D	5635D
5639D	5626D
5641D	5633D
5644D	5632D
5649D	5633D
6065D,6066D	6067D
6120D	6119D
6175D,6176D 6177D	6069D
6225D	6069D
6412D	6443D/TM3E
6418D	6440D/TM1S
6420D	6440D/TM1S

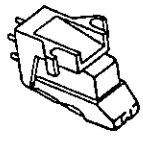
*MUST RETAIN OLD HEAD SHELL

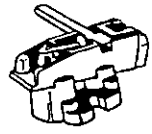
EVG NUMBER ----	CAN BE FOUND UNDER THE FOLLOWING BRANDS	FIG
13A/13D	EVG, ASTATIC, MONTGOMERY WARD	1
26D	EVG, MAGNAVOX, MONTGOMERY WARD, PHILCO, SEARS, VM	2
38A	MAGNAVOX, MONTGOMERY WARD, SEARS, SONOTONE	3
54	RCA	4
56D	ASTATIC, MONTGOMERY WARD	5
68	ASTATIC, MONTGOMERY WARD, PHONOLA	6
78 & D	EVG	1
81 & D	EVG, ASTATIC, MONTGOMERY WARD, PHONOLA	1
89 & D	EVG, ASTATIC, MAGNAVOX, MONTGOMERY WARD	1
93 & D	EVG	1
96	ASTATIC, MONTGOMERY WARD, RONETTE, SEARS	7
120	BSR, MONTGOMERY WARD	8
121	BSR	8
126D	EVG, MAGNAVOX	9
127D	EVG, MAGNAVOX	10
143D	ASTATIC, MONTGOMERY WARD, V-M	11
146	ASTATIC	12
149D	EVG, MONTGOMERY WARD, PHONOLA, SEARS, TRUETONE, VM	13
150D	EVG, MONTGOMERY WARD, SEARS, SONOTONE, PHONOLA	13
158D	EVG, ARVIN, MONTGOMERY WARD, SEARS, MAGNAVOX, PHILCO	13
162	EVG, MONTGOMERY WARD	14
175D	EVG, MAGNAVOX	15
186D	EVG, MONTGOMERY WARD, PHILCO	13
198D	EVG, SEARS	17
195	RCA	16
200 & D	PHILIPS	18
220D	EUPHONICS, MONTGOMERY WARD, PHONOLA	19
239D	GE	20
241D	GE	21
256D	EVG, MAGNAVOX	22
258D	EVG, MAGNAVOX	22
263	RCA	23
266	SONOTONE	24
271	BSR	25
274	BSR, MONTGOMERY WARD, PANASONIC, SONY	26
275D	EVG, MAGNAVOX	27
5026D	EVG, MONTGOMERY WARD, SEARS	28
5050D	EVG, MONTGOMERY WARD, VM	29
5080D	EVG	30
5097D	EVG, MAGNAVOX	31
5100D	TETRAD, ADMIRAL, MONTGOMERY WARD, MOTOROLA, PHONOLA,	32
5104D	TETRAD, ADMIRAL, SYLVANIA,	33
5115D	TETRAD, PHILCO	34
5117D	TETRAD, VM	35
5126D	MONTGOMERY WARD, SEARS, VARCO	36
5146	BSR, MONTGOMERY WARD	37
5149D	EVG, MAGNAVOX	38
5170D	EVG, SEARS	39
5178D	GE	40
5180	GE	41
5188D	ZENITH	42
5190D	RCA	43

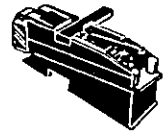
EVG NUMBER	CAN BE FOUND UNDER THE FOLLOWING BRANDS	FIG
5195D	ZENITH	44
5202	VARCO, MAGNAVOX, MONTGOMERY WARD, TRUETONE (WEST. AUTO)	45
5225D	RCA	46
5232D	CHUO DENSHI	47
5233D	CHUO DENSHI	47
5246	VARCO, MONTGOMERY WARD,	48
5254D	TETRAD, ADMIRAL	33
5271D	TETRAD, ZENITH	32
5273D	ADMIRAL, PHONOLA, SYLVANIA, TETRAD	33
5276D	TETRAD, MONTGOMERY WARD	49
5299D	MOTOROLA, TETRAD	50
5301D	TETRAD	32
5308D	MONTGOMERY WARD, TETRAD	51
5310D	MOTOROLA, TETRAD	32
5333	CHANNEL MASTER, GE, MAGNAVOX	52
5341	PANASONIC	26
5344	BSR, MONTGOMERY WARD, PHONOLA, SEARS	37
5363D	BSR, MONTGOMERY WARD, SEARS, TRUETONE	37
5371D	ZENITH	53
5447	TOSHIBA	54
5505D	SEARS, TETRAD	55
5507D	MONTGOMERY WARD, SYLVANIA, TETRAD	56
5508D	TETRAD, VM	57
5528D	MONTGOMERY WARD, SYLVANIA, TETRAD	56
5540D	BSR, MONTGOMERY WARD, J.C. PENNY	37
5541	BSR	37
5545D	BSR, MONTGOMERY WARD	90
5546D	GE	58
5548 &D	ASTATIC, MONTGOMERY WARD	59
5549	ASTATIC, MONTGOMERY WARD, SEARS	59
5553	MONTGOMERY WARD, SONOTONE	60
5572D	BSR, MONTGOMERY WARD, J.C. PENNY	61
5574D	BSR	62
5584D	BSR	61
5595D	ASTATIC	63
5601D	AUE, SONY	64
5602D	AUE, PANASONIC, SONY	65
5603D	AUE, PANASONIC	66
5606D	EVG, MAGNAVOX	67
5608D	TETRAD, GLENBURN, MONTGOMERY WARD, J.C. PENNY,	68
5615D	PANASONIC, J.C. PENNY	69
5625D	BSR	70
5626D	MONTGOMERY WARD, TETRAD	71
5628D	TETRAD	72
5631D	TETRAD, ZENITH	73
5632 & D	MONTGOMERY WARD, TETRAD	74
5633 & D	MONTGOMERY WARD, TETRAD	74
5634 & D	MONTGOMERY WARD, TETRAD	74
5635D	MONTGOMERY WARD, TETRAD	71
5640D	PANASONIC	75
5642D	TETRAD	71
5643	MONTGOMERY WARD, PANASONIC	76

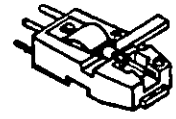
EVG NUMBER	CAN BE FOUND UNDER THE FOLLOWING BRANDS	FIG
5645D	THOMSON	77
6000D	AUDIO TECH, EVG, PANASONIC	78
6009D	AUDIO TECH, MAGNAVOX	79
6012D	AUDIO TECH, MAGNAVOX	80
6067D	AUDIO TECH AT-71E, GRUNDIG, MONTGOMERY WARD, SONY, TOSHIBA	81
6069D	AUDIO TECH AT-3401, MONTGOMERY WARD, SONY	82
6070D	AUDIO TECH AT-112EP	83
6118D	ADC QLM30III, MONTGOMERY WARD	84
6119D	ADC QLM32III, MONTGOMERY WARD	84
6178D	EMPIRE 1C	85
6179D	EMPIRE 3E	85
6314D	PICKERING NP/AT	86
6315D	PICKERING NP/AC, GRUNDING	86
6324D	PICKERING V15MICRO, MONTGOMERY WARD, SONY	87
6440D	SHURE TM1S, MONTGOMERY WARD, SEARS	88
6441D	SHURE TM1E	88
6442D	SHURE TM2E	88
6443D	SHURE TM3E, MONTGOMERY WARD	88
6444D	SHURE LTP-2	89

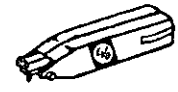
MFG NUMBER	EVG NUMBER		REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
ADC (AUDIO DYNAMCIS CORP.)										
QLM30MKIII	6118D		REPL.QLM30&31 SERIES	84	BK/SLVER	PM2232D	.7D	3-5	MAG.	1.5MV
QLM32MKIII	6119D		REPL.6120D	84	BK/SLVER	PM2233DE	.3X.7D	1-3	MAG.	1.8MV
ADMIRAL										
409C75-1	5100D		75-1,78C233-1	32	BLACK	3391DS	.7D&3S	2-5	CER.	0.12
409C78-1&-3	5104D		78-1, &3,78C235-1,&-3	33	BLACK	3391DS	.7D&3S	2-5	CER.	0.10
940MI-3	5273D		940MI-4-5	33	BLACK	3393DS	.7D&3S	3	CER.	0.17
	5254D		Tetrad	33	BLACK	3393DS	.7D&3S	2.5	CER.	0.27
ARVIN										
	158D		Also Philco, Waters-Conley	13	GRY,BK,WH	2622DS	.7D&3S	3-6	CER.	0.25
ASTATIC										
13T	13A		Stereo Power Point	1	GREEN	13	.7S&3S	6	CER.	0.50
13TX	13D		Diamond Stereo Power Point	1	GREEN	13D	.7D&3S	6	CER.	0.50
70	143D		REPL.70TS, V-M, 80TS	11	BLACK	3009x2	.7D&3S	8	XTAL.	2.00
76	96		TS & TSB SERIES	7	BK/GRAY	3005Dx2	.7S&3S	8	XTAL.	0.80
81T	*81		P.P. Upgrade Use EVG#78	1	BLACK	81	.7S&3S	6	CER.	1.10
81TX	*81D		P.P. Upgrade Use EVG#78D	1	BLACK	81D	.7D&3S	6	CER.	1.10
86TSB	146		Popular Replacements	12	BLACK	3009x2	.7S&3S	6	XTAL.	0.80
89T	*89	M	P.P. Upgrade with EVG #78	1	GOLD	89	.7S&3S	6	CER.	1.30
89TX	*89D	M	P.P Upgrade with EVG#78D	1	GOLD	89D	.7D&3S	6	CER.	1.30
93T1 & TX	*56D	M	Power Point	5	BLUE	56D	.7D&3S	6	CER.	1.00
133D	5595D			63	BLACK	2123DS	.7D&3S	4-6	CER.	0.50
138,140,142	5548		REPL.5547	59	BLACK	2123DS	.7S&3S	6	XTAL.	1.00
142D	5548D			59	BLACK	2123DS	.7D&3S	6	XTAL.	1.00
146,146-7,148	5549	M	REPL.5550 & 5551	59	BLACK	2123DS	.7S&3S	8	XTAL.	3.00
314TS,318,320	68	M		6	BLACK	3009x2	.7S&3S	8	XTAL.	3.20

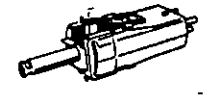

84

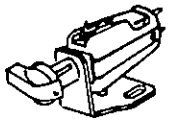

32

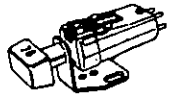

33


13

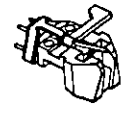

1

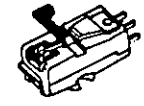

11

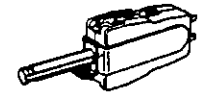

7


12

5

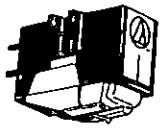

63

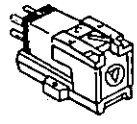

59

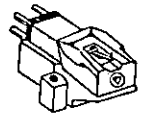

6

M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED
* = POWER POINT

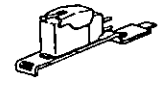
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
AUDIO TECHNICA									
AT 10	6000D	AT-11	78	BK/SLVER	PM2275D	.7	2-4	MAG.	4.8MV
AT-71E	6067D	REPL.6065D,6066D	81	BK/SLVER	PM2296DE	.4x.7D	1.5-2.5	MAG.	3.5MV
AT-3401	6069D	POPULAR with IMPORTED TURNTABLES	82	BK/SLVER	PM2298D	.6D	3-4	MAG.	5.0MV
AT-112EP	6070D	P-Mount Cartridge	83	BLUE	PM2309DE	.4x.7D	1.25	MAG.	5.0MV
OEM	6009D	MAGNAVOX 560356-1	79	BK/YELLOW	PM2276D	.7D	3	MAG.	4.4MV
OEM	6012D	MAGNAVOX	80	BK/SILVER	PM2671D	.7D	3	MAG.	4.4MV
AUE									
CP-17	5601D	Sony	64	BLACK	PM2650D	.7D	2-4	CER.	.50
CP-28S	5602D	Mag.-Cer.cart	65	BLACK	PM2853D	.7D	2-4	CER.	.50
CP-30	5603D	Pana/Mag/Hitachi	66	BLACK	PM2854D	.7D	3-5	CER.	.50
BSR									
C-1	274	C1ST3-67-70 Mini's	26	WHITE	2421DS	.7S&3S	2-6	CER.	0.43
SC5HD	5363D	70-72 Changers	37	GRAY	2424DS	.7D&3S	6-8	CER.	0.59
SC5M	5540D	70-71 Changers	37	DARK GRAY	2427DS	.7D&3S	4-6	CER.	0.28
SC7M1,SC8H1	*5572D	Also SC7M2,SC8H2 SERIES	61	BLACK	2428DS	.7D&3S	4	CER.	0.50
SC7M3,SC8H3	5574D	1971-73 Changers	62	BK/SILVER	2428DS	.7D&3S	4	CER.	0.50
SC7M4/ST17	5545D		90	BLACK	2428DS	.7D&3S	4	CER.	0.50
SC10H2,SC12H	5625D		70	BLACK	2429D	.7D	3-5	CER.	0.50
SC11M1/ST16/ST17	5584D	Stereo,Diamond	61	BLACK	2428DS	.7D&3S	2-6	CER.	.25
SX1H,SX5H	5344	SX5M S5X2H SX6M	37	GRAY	2427DS	.7D&3S	6-8	XTAL.	2.20
SX1M	271		25	IVORY/WH	2424DS	.7S&3S	5-7	XTAL.	0.90
SX5M,SX6M	5541		37	BLACK	2427DS	.7S&3S	4-6	XTAL.	0.90
TC8H	120 M	Mono-Hi Output	8	BK/ORANGE	3009x2	1S&3S	10-12	XTAL.	4.00
TC8S	121	Old Popular Stereo	8	WHITE	3009x2	.7S&3S	7	XTAL.	0.80
X5H	5146	X1HE,X4H	37	BLACK	2424DS	.7S&3S	7-9	XTAL.	4.00

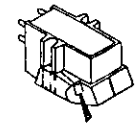

78

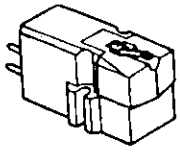

81

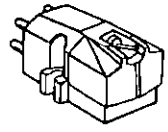

82

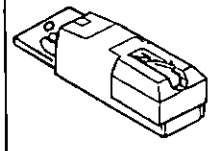
83

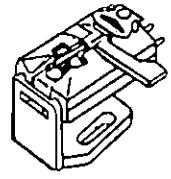

79

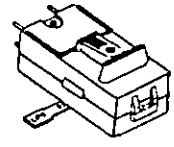

80

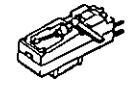

64

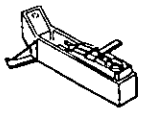

65


66

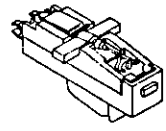

26

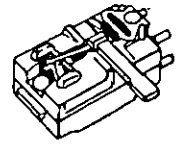

37


61


62

90

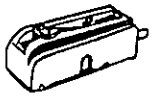

70

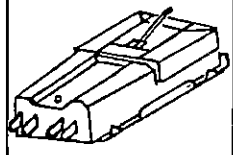

25

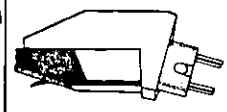
8

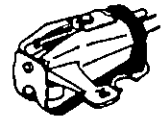
M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED *MUST RETAIN OLD HEAD SHELL

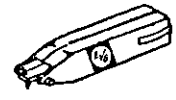
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
CHANNEL MASTER									
	5333 M	REPL.5331	52	WHITE	3009	.7S	4	XTAL.	2.50
CHUO DENSHI									
CZ-398-1	5233D	Mono Cart .	47	BLACK	2480D	.6D	3-5	CER.	.50
CZ-698-3	5232D	Stereo Cart.	47	BLACK	2480D	.6D	3-5	CER.	.50
EMPIRE									
1C	6178D	P-Mount	85	BK/CLEAR	PM2485D	.6D	1.25	MAG.	4.0MV
3E	6179D	P-Mount	85	BLUE	PM2486DE	.3X.7D	1.25	MAG.	4.0MV
EUPHONICS									
E2,U2	220D	REPL.E1,U1	19	GRAY	2677Dx2	.7D&3S	8	CER.	0.30
EVG									
13A		Stereo Power Point	1	GREEN	13A	.7S&3S	6	CER.	0.50
13D		Diamond Stereo P.P.	1	GREEN	13D	.7D&3S	6	CER.	0.50
26D		Used in Magnavox Motorola, Sears, Philco, V-M	2	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
78		Upgrade For 81 & 89	1	RED	78	.7S&3S	3-5	CER.	1.30
78D		Upgrade For 81D & 89D	1	RED	78D	.7D&3S	3-5	CER.	1.30
81		Power Point	1	BLACK	81	.7S&3S	5-7	CER.	1.10
81D		Power Point	1	BLACK	81D	.7D&3S	5-7	CER.	1.10
89		Power Point	1	GOLD	89	.7S&3S	5-7	CER.	1.30
89D		Power Point	1	GOLD	89D	.7D&3S	5-7	CER.	1.30
93		Special Purpose Power Point	1	RED/SILVER	93	.7S&3S	3-5	CER.	1.0
93D		Special Purpose Power Point	1	RED/SILVER	93D	.7D&3S	3-5	CER.	1.0
126D		Magnavox 560217-2,560275-2	9	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
127D		Magnavox 560296-7	10	GRAY	2604Dx2	.7D&3S	5	CER.	0.45
149D		EV132D/EV186	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
150D		Sears 33-393-0 Sonotone21T Series	13	WH,BK, TN	2622DS	.7D&3S	4-8	CER.	0.55
158D		Arvin,Philco,Magnavox 560311-1	13	GRY,BK,WH	2622DS	.7D&3S	3-6	CER.	0.25
162		RCA103238,EV41	14	SILVER	NR	1S	10	XTAL	3.00
175D		Magnavox 560384-1,560384-2	15	WHITE	2644DS	.7D&3S	2-4	CER.	0.20
186D		Mont.Ward, Philco	13	BLACK	2622DS	.7D&3S	3-6	CER.	0.18

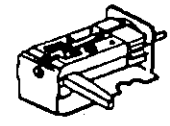

52

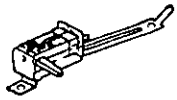

47

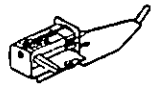

85

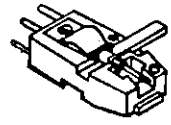

19


1

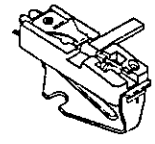

2


9


10

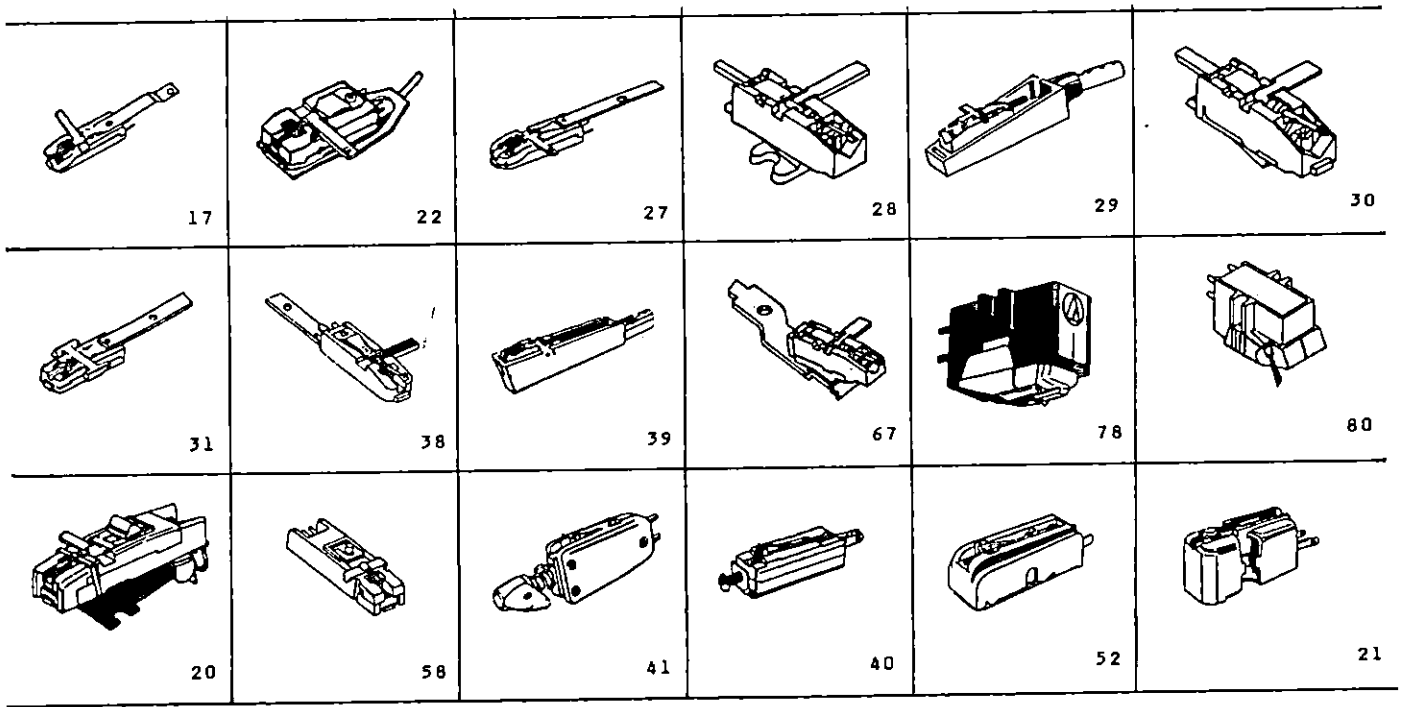

13

14


15

M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED * MUST RETAIN OLD HEAD SHELL

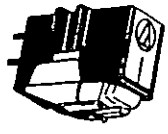
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
EVG (CONT'D)									
198D		Sears 33-422-0	17	GRY or WH	2644DS	.7D&3S	2-4	CER.	0.25
256D		Magnavox 560315-1	22	WH or BK	2622DS	.7D&3S	4-8	CER.	0.55
258D		Magnavox 560340-1,560311-2	22	BK or WH	2622DS	.7D&3S	4-8	CER.	0.50
275D		Magnavox 560345-1,560344-1	27	WH or GRY	2644DS	.7D&3S	2-4	CER.	0.20
5026D		Garrard 30,1969-1970	28	BLACK	2636DS	.7D&3S	4-7	CER.	0.45
5050D		REPL.5084D VM43630-A,Airline 40177-A	29	BLACK	2625DS	.7D&3S	2-5	CER.	0.12
5080D		Garrard X10 &XII	30	BLACK	2636DS	.7D&3S	4-7	CER.	0.45
5097D		Magnavox 560347-1	31	WH or GRY	2647D	.7D	2-4	CER.	0.22
5149D		Magnavox 560337-1,VM 45122-A	38	WHITE	2644DS	.7D&3S	2-4	CER.	0.22
5170D		Sears 33-461-0	39	BLACK	2625DS	.7D&3S	4-6	CER.	0.28
5606D		Magnavox 560389-1,-3	67	BLACK	2625DS	.7D&3S	3-5	CER.	0.22
6000D		Audio Tech. AT-10, Landmark	78	BLACK	PM2275D	.7D	2-4	MAG.	4.8MV
6012D		Audio Tech, Magnavox	80	BK/SILVER	PM2671D	.7D	3	MAG.	4.4MV
GE									
C-650	239D	EA1013,EA80X234	20	DK GRY	2744DS	.7D&3S	6	CER.	0.40
C-660	5546D	EA2223 EA80X431	58	BLACK	2752D	.7D	5-7	CER.	0.60
RT1051	5180	Show N' Tell EA2389	41	IVORY	3009x2	1S&3S	8	XTAL.	3.50
RT1660	5178D M	Show N' Tell RT1054	40	IVORY	3009D	.7D	10	XTAL.	3.60
RT2716	5333 M	RT2717 Magnavox 560313-5	52	GRAY	3009	.7S	4	CER.	1.00
4G-061	241D M	4G-063/040	21	BK/GRY	2733D	.7D	2	MAG.	0.01

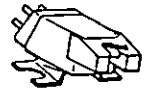


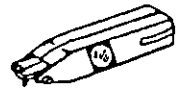
M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED

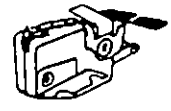
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
GLENBURN									
GL77	5608D	Tetrad 2-T5HD-GL-77	68	BK/SILVER	3395DS	.7D&3S	5-8	CER.	0.50
GRUNDIG									
STS-222	6000D		78	BK/SILVER	PM2275D	.7D	2-4	MAG.	4.8MV
V-15AC-2	6315D	Pickering P/AC	86	BLACK	PM4007D	.7D	2-4	MAG.	7.5MV
MAGNAVOX									
560213-2	89	560213-2	1	GOLD	89	.7S&3S	6	CER.	1.10
560213-2	89D	560215-2	1	GOLD	89D	.7D&3S	6	CER.	1.10
560224-2	38A M	560188-2	3	GREEN	3201DS	.7S&3S	6	CER.	1.00
560228-1-2	126D	560275-1-2	9	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
560233-3,-4	26D	560280-1,-2	2	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
560281-3-4	127D	560296-3-4	10	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
560310-1,-2	256D	560310-1,-2	22	GRAY	2622DS	.7D&3S	4-8	CER.	0.55
560311-1,-2	158D	560311-1,-2	13	GRAY	2622DS	.7D&3S	3-6	CER.	0.25
560313-5	5333 M	560313-3	52	GRAY	3009	.7S	4	CER.	1.00
560315-1	256D	560315-1	22	WH/BK	2622DS	.7D&3S	4-8	CER.	0.55
560337-1	5149D	560337-1	38	WHITE	2644DS	.7D&3S	2-4	CER.	0.22
560240-1,-2	258D	560305-1,-2	22	BLACK	2622DS	.7D&3S	4-8	CER.	0.50
560345-1	275D	REPL. 560344-1	27	GRY or WH	2644DS	.7D&3S	2-4	CER.	0.20
560347-1	5097D	560347-1	31	WHITE	2647D	.7D	2-4	CER.	0.22
560350-1	275D		27	GRY or WH	2644DS	.7D&3S	2-4	CER	0.22
560356-1	6009D	560356-1	79	BK/YELLOW	PM2276D	.7D	3	MAG	4.4MV
560384-1	175D	560384-1	15	IVORY	2644DS	.7D&3S	2-4	CER.	0.20
560389-1	5606D	560389-1(EV)	67	BLACK	2625DS	.7D&3S	3-5.	CER.	0.22
560434-1	5202	Hitachi 4988011 Magnavox 560434-1	45	BLACK	3332DS	.7S&3S	2-4	CER.	0.40
560369-1	6012D	SEE AUDIO-TECHNICA	80	BLACK	PM2671D	.7D	3	MAG.	4.4MV

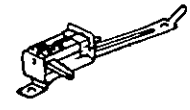
68

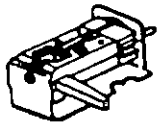

78

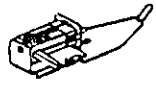

86

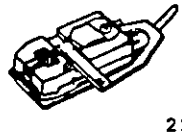

1

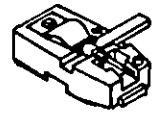

3


9

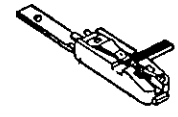

2

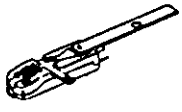

10

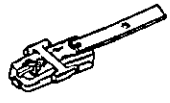

22


13

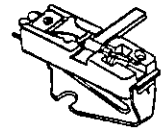
52

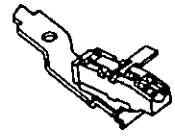

38

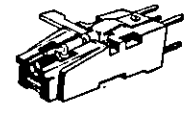

27


31

79

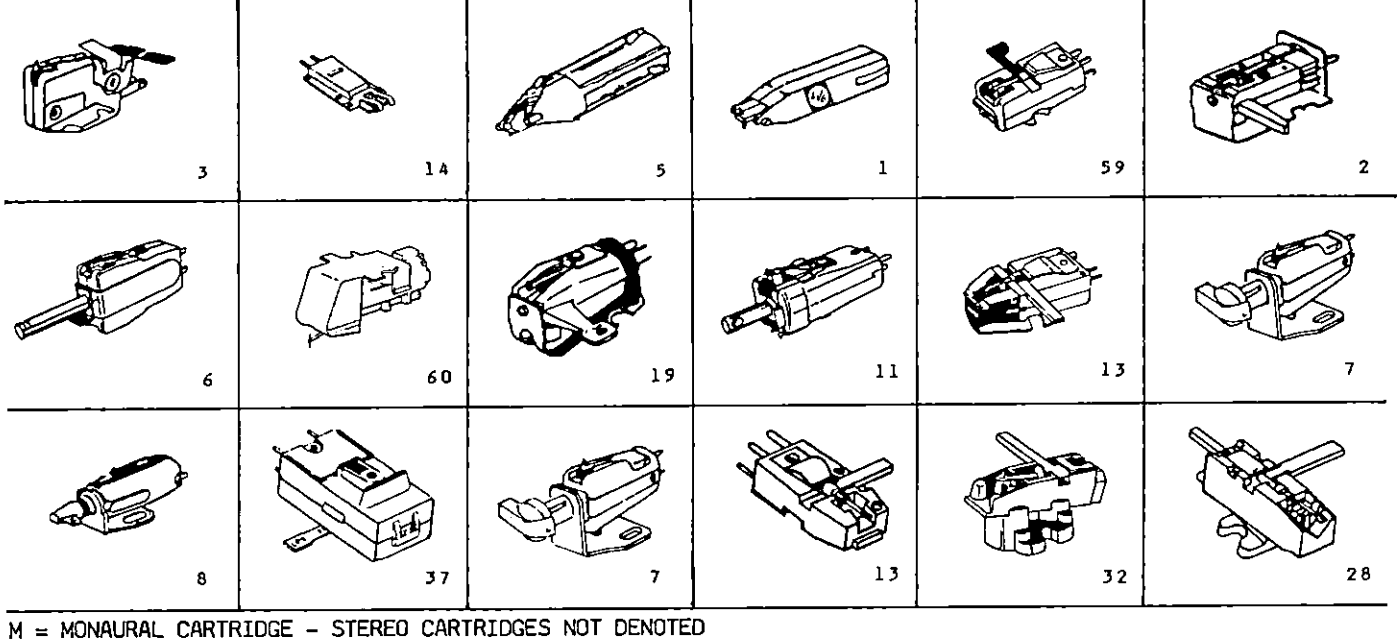

15


67


45

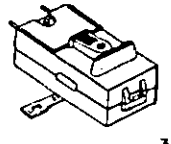
M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED

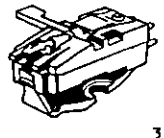
MFG NUMBER	EVG NUMBER		REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
MONTGOMERY WARD (AIRLINE)										
60-41	38A	M	SONOTONE 2T-5	3	GREEN	3201DS	.7S&3S	6	CER.	1.0
60-46	162	M	RCA 103238	14	SILVER	NR	1S	10	XTAL	3.0
60-51	56D	M	ASTATIC 93TX	5	BLUE		7D&3S	6	CER.	1.0
60-58	89D	M	AUDIO-VISUAL	1	GOLD		.7D&3S	3-5	CER.	1.5
60-59	81	M	ASTATIC 81T	1	BLACK		.7S&3S	6	CER.	1.1
60-60	13A		ASTATIC 13T	1	GREEN		.7S&3S	6	CER.	0.5
60-61	13D		ASTATIC 13TX	1	GREEN		.7D&3S	6	CER.	0.5
60-76	5549	M	REPL.60H24	59	BLACK	2123DS	.7S&3S	8	XTAL	3.0
60-77	26D		SEARS,V-M	2	GRAY	2604Dx2	.7D&3S	5	CER.	0.5
60-83	68	M	ASTATIC 314TS,318	6	BLACK	3009 x2	.7S&3S	8	XTAL.	3.2
60-87	5553		SONOTONE 9,16,18,&T	60	BLACK	3214DS	.7D&3S	4-7	CER.	0.5
60-88	220D			19	GRAY	2677Dx2	.7D&3S	8	CER.	0.3
60-90,-91	143D		ASTATIC 70TS	11	BLACK	3009Dx2	.7D&3S	8	XTAL.	2.0
60-101	150D		SONOTONE 21T	13	WH,BLK	2622DS	.7D&3S	4-8	CER.	0.55
60-103	96		RONETTE 106,208	7	GRAY	3005Dx2	.7S&3S	6	XTAL.	1.0
60-106,-107	149D		EV-132D	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
60-108	89	M	ASTATIC 89T	1	GOLD		.7S&3S	6	CER.	1.3
60-109	186D		PHILCO 35-2865-2	13	BLACK	2622DS	.7D&3S	3-6	CER.	0.18
60-116	96		ASTATIC 76TSB	7	BLACK	3005Dx2	.7S&3S	6	XTAL.	1.0
60-118	5548D		ASTATIC 142D	59	BLACK	2123DS	.7D&3S	8	XTAL.	2.0
60-119	120	M	BSR TC8H	8	BLACK	3009 x2	1S&3S	10-12	XTAL.	4.0
60-120	5548D		ASTATIC 138,140	59	BLACK	2123DS	.7D&3S	8	XTAL.	2.0
60-123	5344		BSR, REPL. 60-124	37	BLACK	2427DS	.7D&3S	7	XTAL.	2.2
60-128	5549	M	ASTATIC 146	59	BLACK	2123DS	.7S&3S	8	XTAL.	3.0
60-131	96		ASTATIC 86TSB	7	GRAY	3005Dx2	.7D&3S	6	XTAL.	1.0
60-133	158D		MAG.560311-1	13	GREEN,BK	2622DS	.7D&3S	3-6	CER.	0.25
60-135	5100D		TETRAD 6-32D-75-1	32	BLACK	3393DS	.7D&3S	2-5	CER.	0.12
60-136	5026D		GARRARD 30	28	BLACK	2636DS	.7D&3S	4-7	CER.	0.45

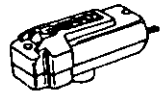


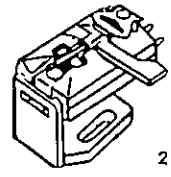
M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED

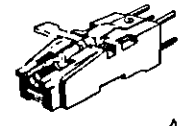
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
MONTGOMERY WARD (AIRLINE) CONT'D									
60-140	5146 M	BSR X5H,X4H,X1HE	37	BLACK	2424DS	.7S&3S	7-9	XTAL.	4.0
60-152	5344	BSR SX5H,SX6H	37	BLACK	2427DS	.7D&3S	7	XTAL.	2.2
60-154	5126D	VARCO TN-4AD	36	BLACK	3332DS	.7D&3S	4	CER.	0.4
60-155	5246 M	VARCO SN-H44	48	BK & GR	3009	.7S	8	XTAL.	2.7
60-156	274	BSR C1ST3,C-1	26	DK.GRAY	2421DS	.7S&3S	2-6	CER.	0.43
60-157	5202	VARCO CN-72	45	BLACK	3332DS	.7S&3S	8	XTAL.	0.9
60-160	5363	NLA USE 60-165	37	GRAY	2424	.7S&3S	6-8	CER.	0.59
60-162	5126D	60-161,TN-4AD	36	BLACK	3332DS	.7D&3S	4	CER.	0.4
60-163	6440D	SHURE TM-1S	88	BLACK	PM3143D	.7D	2-4	MAG.	9.0MV
60-164	5540	BSR SC5M	37	DK.GRAY	2427DS	.7S&3S	4-6	CER.	0.28
60-165	5363D	BSR SC5HD	37	GRAY	2424DS	.7D&3S	6-8	CER.	0.59
60-166	6324D	PICKERING V15MICRO	87	BLACK	PM4039D	.7D	2-4	MAG.	8.0MV
60-170	5126D	VARCO TN-4AD	36	BLACK	3332DS	.7D&3S	4	CER.	0.4
60-172	6440D	SHURE M71 SERIES	88	BLACK	PM3143D	.7D	1.5-3	MAG.	6.2MV
60-173	6443D	SHURE TM-3E	88	BLACK	PM3127DE	.2X.7	1	MAG.	5.0MV
60-174	5572D	BSR SC7M1,8H1	61	BLACK	2428DS	.7D&3S	4	CER.	0.5
60-175	5626D	REPL. 60-176,60-177,60-179	71	BLUE	3395DS	.7D&3S	5	CER.	0.51
60-178	5635D	TETRAD TC11M1/T3MD,60-181	71	BK/GRAY	3393DS	.7D&3S	4	CER.	0.22
60-182	5632D	TETRAD A & SN BRKT	74	BK,BLUE	3393DS	.7D&3S	4	CER.	0.29
60-183	6119D	ADC QLM32III, 60-184	84	BLACK	PM2233DE	.3X.7D	1-3	MAG.	1.8MV
60-185	5633D	TETRAD A & SN BRKT	74	BK,GREEN	3393DS	.7D&3S	4	CER.	0.22
60-186	6118D	ADC QLM30 MKIII	84	BLACK	PM2232D	.7D	2-4	MAG.	9.0MV
60-187	5634D	TETRAD A & SN BRKT	74	BK,RED	3393DS	.7D&3S	4	CER.	0.15
60-188	6067D	AT-70, AT-71, AT-71E	81	BLACK	PM2296DE	.7D	2-3	MAG.	3.5MV
60-190	5633D	TETRAD A & SN BRKT	74	BK,GREEN	3393DS	.7D&3S	4	CER.	0.22
60-191	5344	BSR SX5H,SX6H	37	BLACK	2427DS	.7S&3S	7	XTAL.	2.2
60-192	5643	PANASONIC EPC-02STA,STB,STC	76	GRAY	2829D	.7S	10-12	CER.	.70
60-193	5126D	VARCO TN-4AD	36	BLACK	3332DS	.7D&3S	4	CER.	0.4
60-194	6069D	AT-340I	82	BLACK	PM2298D	.6D	3-4	MAG.	3.5MV

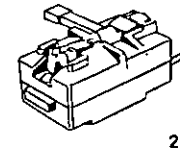

37

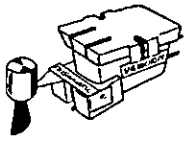

36

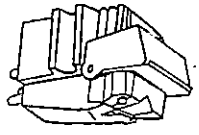

48

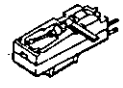

26

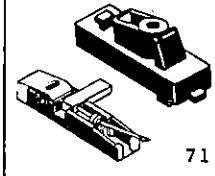

45

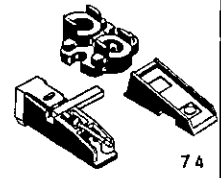

25

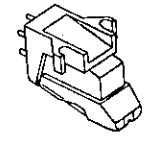

87

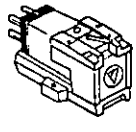

88

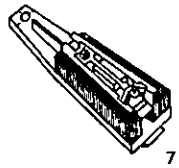

61

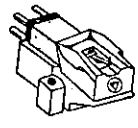

71


74


84

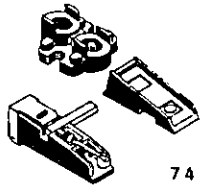

81

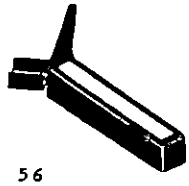

76


82

M = MONAURAL CARTRIDGE-STEREO CARTRIDGES NOT DENOTED

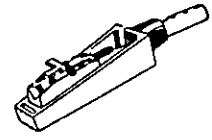
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
MONTGOMERY WARD (AIRLINE) CONT'D									
60-195	5632D	TETRAD A & SN BRKT	74	BK/BLUE	3393DS	.7D&3S	4	CER.	0.29
2-11-D-BSR-101	5507D	TETRAD	56	BLACK	3393DS	.7D&3S	2.5	CER.	0.12
2-21-D-BSR-2	*5632D	TETRAD	74	BK/BLUE	3393DS	.7D&3S	4	CER.	0.29
2-21-D-BSR-4	5308D	TETRAD	51	BLACK	3393DS	.7D&3S	3-6	CER.	0.41
2-51-D-GL-77	5608D	TETRAD	68	BLACK	3395DS	.7D&3S	5-8	CER.	0.5
6-21-D-BSR-4,-20	*5634D	TETRAD	74	BK/RED	3393DS	.7D&3S	4	CER.	0.15
6-31-D-BSR-67	5528D	TETRAD	56	CHROME	3393DS	.7D&3S	2.5	CER.	0.8
40177-B,45037-B	5050D	VM	29	BLACK	2625DS	.7D&3S	2-5	CER.	0.12
88-15606	5276D	38605A50, MW-1	49	BLACK	3393DS	.7D&3S	3	CER.	0.17
SC7M4-ST17	5545D	BSR	90	BK/SLVER	2428DS	.7D&3S	4	CER.	0.50
MOTOROLA									
59C60459B01	5310D	59C60459B03	32	BLACK	3395DS	.7D&3S	2-5	CER.	0.58
59C61359B03	5100D	59C61359B05	32	BLACK	3393DS	.7D&3S	2-5	CER.	0.12
59C63643A04	5299D	A05,A06,A07,A08,M1,M4,M11	50	GRY/BROWN	3391DS	.7D&3S	2-5	CER.	0.12
PANASONIC									
EPC-02SDTA	5643	EPC-02STB,STC	76	GRAY	2829D	.7S	10	CER.	0.70
EPC-05STAD	5640D	EPC-05STAD	75	BLACK	2824D	.7D	4	CER.	0.50
EPC-09STAD	5602D		65	BLACK	PM2853D	.7D	2-4	CER.	0.05
EPC-34TTE	5615D	EPC-34TTE,STFA,TTE	69	BLACK	2421DS	.7D&3S	5-7	CER.	0.40
ERC-35TTA	5341	EPC-35TTB	26	DK GRAY	2421DS	.7S&3S	6	CER.	0.25
EPC-35TTC	274	EPC-35TTCD	26	DK GRAY	2421DS	.7S&3S	6	CER.	0.43
EPC-82SMBD	6000D		78	BK/SILVER	PM2275D	.7D	2-4	CER.	4.8MV
EPC-135THD	5603D	Hitachi & Magnavox	66	BLACK	PM2854D	.7D	3-5	CER.	0.05


74


56

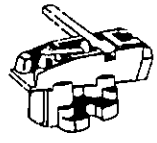
51

68

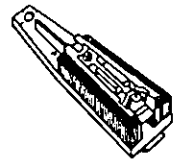

29

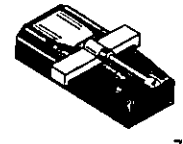
49

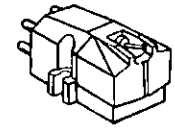
90

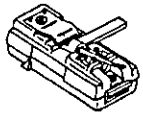

32

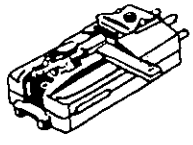
50

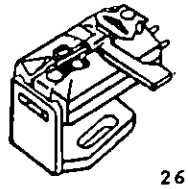

76

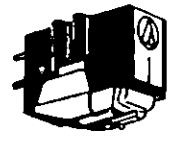

75

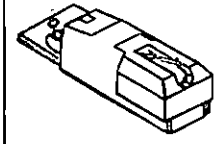

65


69


26

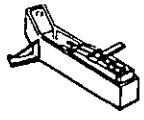

26


78

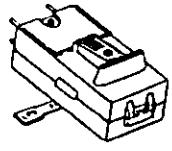

66

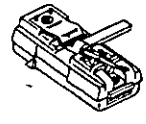
*MUST RETAIN OLD HEAD SHELL

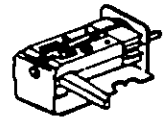
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
J.C. PENNY									
2-51D-GL77	5608D	Glenburn	68	BLACK	3395DS	.7D&3S	5-6	CER.	0.50
SC8H2	*5572D	BSRSC7M1, SC8H1,SC121H1	61	BK/SILVER	2428DS	.7D&3S	4	CER.	0.50
SC8H3	5572D	BSRSC7M2, SC8H2,SC12H2	61	BK/SILVER	2428DS	.7D&3S	4	CER.	0.50
8750	5540D	EVG 5712, 5752, BSR SC5M	37	DK GRAY	2427DS	.7D&3S	4-6	CER.	0.28
EPC-34STA	5615D	PANASONIC EPC-34TTE	69	BLACK	2421DS	.7D&3S	5-7	CER.	0.40
PHILCO									
	26D	Philco-Magnavox	2	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
35-2856-2	158D		13	BLACK	2622DS	.7D&3S	3-6	CER.	0.18
35-286S-2	186D		13	BLACK	2622DS	.7D&3S	3-6	CER.	0.18
6-11-P4	5115D	6-TILD-P4, P4	34	BK/SLVER	3391DS	.7D&3S	1-5	CER.	0.10
PHILIPS									
GP-214,-215	200D		18	BK or WH	200D	.7D	4-5	CER.	0.50
PHONOLA									
13134	68	13134	6	BLACK	3009Dx2	.7S&3S	8	XTAL.	3.20
12827	81	12827	1	BLACK	81	.7S&3S	6	CER.	1.10
16744	149D	13376,13939 EVG 132	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
15399	150D	16406,16837	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
15723	220D	15723	19	GRAY	2677Dx2	.7D&3S	8	CER.	0.30
22229	5100D	21664,TETRAD	32	BLACK	3393DS	.7D&3S	2-5	CER.	0.12
22782	5273D	22028 TETRAD	33	BLACK	3393DS	.7D&3S	3	CER.	0.17
23302	5344	23302	37	BLACK	2427DS	.7D&3S	7	XTAL.	2.20
2-TILD-B	5301D	TETRAD	32	BLACK	3391DS	.7D&3S	2-4	CER.	0.24

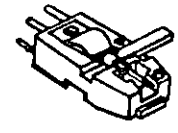

68

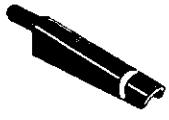
61

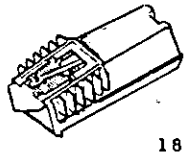

37

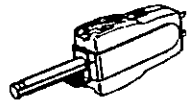

69

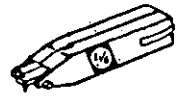

2

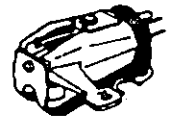

13

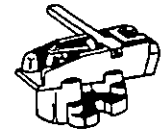

34

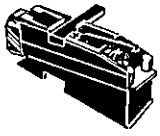

18

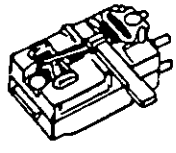

6


1


19

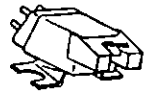

32

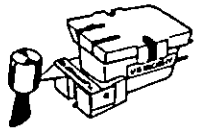

33

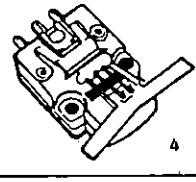

37

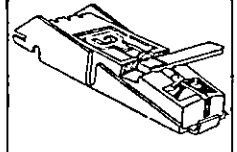
*MUST RETAIN OLD HEAD SHELL

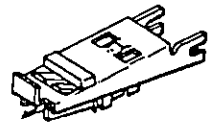
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
PICKERING									
NP/AC	6315D	REPL. ALL V-15 SERIES	86	BLACK	PM4007D	.7D	3-5	MAG.	7.5MV
NP/AT 6314D		REPL. ALL LIGHT TRACKING V-15 SERIES	86	BLACK	PM4006D	.7D	3-5	MAG.	6.9MV
V15	6324D	MICRO IV/AT, ACE, ATE	87	BK/IVORY	PM4039D	.7D	2-4	MAG.	8.0MV
R.C.A									
110021	54D	108213,200-8	4	RED	2907DS	.7D&3S	6	CER.	0.40
115277,115303,	5190D	117331,122123,126317,115703	43	BEIGE	2912DS	.7D&3S	3	CER.	0.17
135273	5225D	135273	46	CHROME	2917D	.7D	4-6	CER.	0.30
115057	263	115058	23	BLACK	2911	.7S	7-9	XTAL.	2.50
111347	195	111348,115062,115096	16	RED	2907DS	.7S&7S	6	CER.	0.40
RONETTE									
106,208	96		7	BK/GRAY	3005Dx2	.7S&3S	6	XTAL.	1.00
SEARS (SILVERTONE)									
33-349-0	149D	58233	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
33-392-0	150D	33-395-0	13	WH/BLACK	2622DS	.7D&3S	4-8	CER.	0.55
33-4220	198D	188932	17	GRAY	2644DS	.7D&3S	2-4	CER.	0.25
33-461-0	5170D	88772,33-449-0	39	BK/GRAY	2625DS	.7D&3S	4-6	CER.	0.28
57803	38A M	5780SD	3	GREEN	3201DS	.7S&3S	6	CER.	1.00
57862,57863	26D	5788SD	2	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
57893	96	33-323-0	7	GRAY	3005Dx2	.7S&3S	6	XRAL.	1.00
58232	150D	33-393-0	13	WH/BLACK	2622DS	.7D&3S	4-8	CER.	0.55
58233	149D	33-347-0	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
88533	5363D	5363	37	GRAY	2424DS	.7D&3S	6-8	CER.	0.59

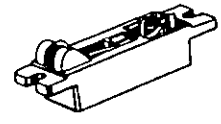

86

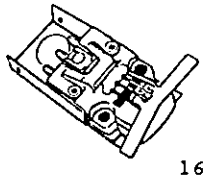

87

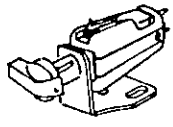

4

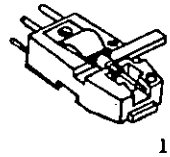

43

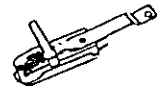

46

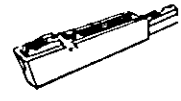

23

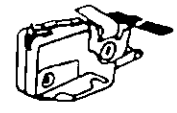

16

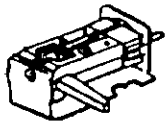

7

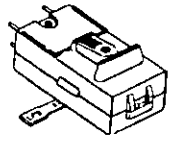

13


17


39

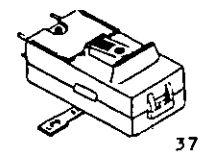
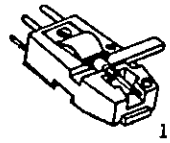
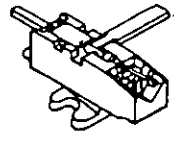
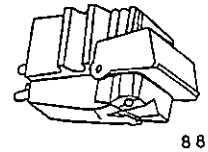
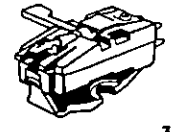
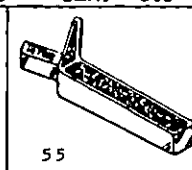
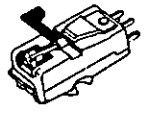
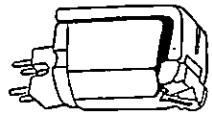

3

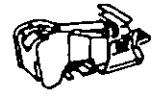
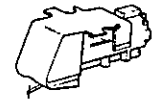
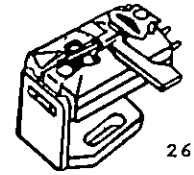
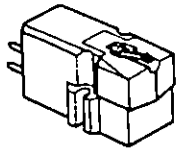
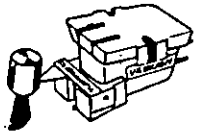
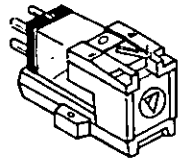
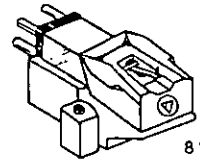
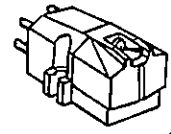
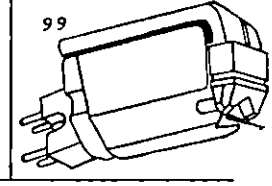

2


37

M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED

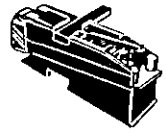
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
SEARS (SILVERTONE) CONT'D									
88613,88813	5344	8861-S,8881S	37	BLACK	2427DS	.7S&3S	7	XTAL.	2.20
88972,88973	158D	8897SD	13	GRAY	2622DS	.7D&3S	3-6	CER.	0.25
89002	5026D	1968-69Changers	28	BLACK	2636DS	.7D&3S	4-7	CER.	0.45
89011	6440D	SHURE TM-IS	88	BLACK	PM3143D	.6D	3-5	MAG.	9.0MV
89032	5126D	1968-69Changers	36	BLACK	3332DS	.7D&3S	4	CER.	0.40
89082	5505D	1972-73Changers	55	BLACK	3393DS	.7D&3S	2.5	CER.	0.25
720154	5549	72009	59	BLACK	2123DS	.7S&3S	8	XTAL.	2.70
SHURE									
TM-1S	6440D	REPL.M3D,M44-7,M71C,M71-6,M75CS	88	BLACK	PM3143D	.7D	2-4	MAG.	9.3MV
TM-1E	6441D	REPL.M44E,M75E	88	BLACK	PM3144DE	.4X.7D	2-4	MAG.	9.3MV
TM-2E	6442D	REPL.M75EJ,M95EJ,M93E	88	BLACK	PM3144DE	.4X.7D	1.5-3	MAG.	5MV
TM-3E	6443D	REPL.M75EDII,M91ED,M95ED	88	BLACK	PM3127DE	.2X.7D	.75-1.5	MAG.	5MV
LTP-2	6444D	P-MOUNT	89	BLACK	PM3172DE	.4X.7D	1.25	MAG.	4MV
ME-75P	6445D	P-MOUNT	99	BLACK	PM3174DE	.4X.7D	1.25	MAG.	4MV
SONOTONE									
2T-S	38A M		3	GREEN	3201DS	.7S&3S	6	CER.	1.00
8T	266		24	RED	3213DS	.7S&3S	3-5	CER.	0.30
9T	5553	16T,189T,967T	60	BK/GOLD	3214DS	.7S&3S	4-7	CER.	0.50
21T	150D	21T Series	13	WH,BKorTN	2622DS	.7D&3S	4-8	CER.	0.55
SONY									
C1ST4	274	C1ST4-Also BSR	26	DK GRAY	2421DS	.7S&3S	2-6	CER.	0.43
VX23P	5601D	AUE CP-17	64	BK/RED	PM2650D	.7D	2-4	CER.	0.40
V15/AT-3	6324D	V15/AT-3	87	BK/IVORY	PM4039D	.7D	2-4	CER.	0.40
VL-33G	6067D	VL-33G	81	BK/SILVER	PM2296DE	.7D	2-3	MAG.	3.5MV
VL-38GSA	6069D	VL-38GSA	82	BK/SILVER	PM2298D	.6D	3-4	MAG.	3.5MV
VX-60G	5602D	AUE CP-28S	65	BLACK	PM2853D	.7D	3-5	CER.	0.5

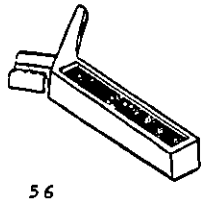

37

13

28

88

36

55

59

89

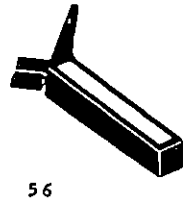
3

24

60

26

64

87

81

82

65

99

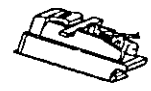
M = MONAURAL CARTRIDGE - STEREO CARTRIDGES NOT DENOTED

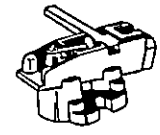
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
SYLVANIA									
11-26599-1	5104D	11-26249-2	33	BLACK	3391DS	.7D&3S	2-5	CER.	0.10
11-26627-3	5273D	11-26627-2	33	BLACK	3393DS	.7D&3S	3	CER.	0.17
11-32399-1	5528D	1-28202-3	56	CHROME	3393DS	.7D&3S	2.5	CER.	0.80
11-32753-2	5507D	11-3275-1	56	BLACK	3393DS	.7D&3S	2.5	CER.	0.12
TETRAD									See "How to Identify Tetrad Cartridges"
1-TZ1D-Z2	5631D	Zenith 142-185	73	BK/CHROME	3391DS	.7D&3S	5	CER.	0.59
2-TILD-B	5301D	EMERSON 2-12D-A PHONOLA	32	BLACK	3391DS	.7D&3S	2-4	CER.	0.24
2-T3MD-BSR4	5308D	2-21D-BSR4	51	BK/SILVER	3393DS	.7D&3S	3-6	CER.	0.41
2-T3MD-V109	5505D	2-G1S-V109	55	BLACK	3393DS	.7D&3S	2-5	CER.	0.25
2-T5HD-B	5310D	2-62S-C	32	BLACK	3395DS	.7D&3S	6	CER.	0.58
2-T5HD-GL77	5608D	Glenburn	68	BK/SILVER	3395DS	.7D&3S	5-8	CER.	0.50
3-T3MD-B	5271D	3-42D-A	32	BLACK	3393DS	.7D&3S	2-5	CER.	0.22
3-T3MD-BSR32	5507D	3-71D-BSR32	56	BK/SILVER	3393DS	.7D&3S	2-5	CER.	0.12
3-T3MD-SN1	5254D	3-43D-78-7,3-43D-235-7	33	BLACK	3393DS	.7D&3S	2-5	CER.	0.27
3-T3MD-V139	5508D	14-G1 D-V134	57	BLACK	3393DS	.7D&3S	4	CER.	0.20
6-TILD-M11	5299D	6-31D-M11	50	GRY or BRN	3391DS	.7D&3S	2-5	CER.	0.12
6-TILD-P4	5115D	6-11D-P4	34	BK/CHROME	3391DS	.7D&3S	1.5	CER.	0.10
6-TILD-SN3	5104D	6-13D-78-3,6-13D-235-3	33	BLACK	3391DS	.7D&3S	1.5	CER.	0.10
6-T3MD-B	5100D	6-32D-75-1,6-32D-233-1	32	BLACK	3393DS	.7D&3S	2-5	CER.	0.12
6-T3MD-BSR35	5528D	6-41D-BSR35	56	CHROME	3393DS	.7D&3S	2.5	CER	0.80
6-T3MD-MW1	5276D	6-21D-MW-1	49	BLACK	3393DS	.7D&3S	3	CER.	0.17
6-T3MD-SN2	5273D	6-23S SN2	33	BLACK	3393DS	.7D&3S	3	CER.	0.17
6-T3MD-V1	5117D	6-21D-V2	35	BRN/NICKEL	3393DS	.7D&3S	3	CER.	0.17
TC6L1/TILD	5642D	Overhead Screw Mount	71	BK/RED	3391DS	.7D&3S	2-4	CER.	0.15
TC8H1/T5HD	5626D	Tetrad w/BSR Bracket	71	BK/BLUE	3395DS	.7D&3S	5	CER.	0.51


33


56


56


73

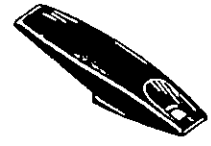

32

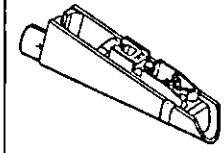
51

55

68

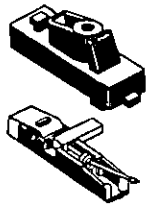
57


50

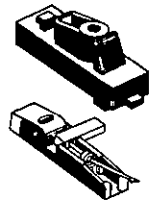

34

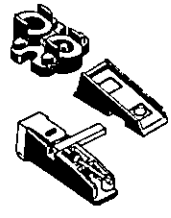
49

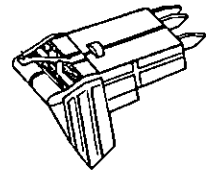
35

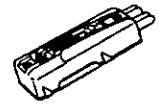

71

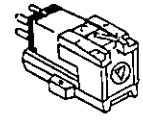
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
TETRAD (CONT'D)									
									See "How to Identify Tetrad Cartridges"
TC11M1/T3MD	5635D	Tetrad w/BSR Bracket	71	BK/GRAY	3393DS	.7D&3S	4	CER.	0.22
TC11/T30MD	5633D	Universal Repl.A&SN Brkt.	74	BLACK	3393DS	.7D&3S	4	CER.	0.22
TC12M1/T2MD	5626D	Tetrad w/BSR Brkt.	71	BK/BLUE	3395DS	.7D&3S	4	CER.	0.22
UNIVERSAL	5632	Universal Replacement.	74	BK/BLUE	3393	.7S&3S	4	CER.	0.29
UNIVERSAL	5632D	Universal Repl.A&SN Brkt.	74	BK/BLUE	3393DS	.7D&3S	4	CER.	0.29
UNIVERSAL	5633	Universal Repl.A&SN Brkt.	74	BK/GRAY	3393	.7S&3S	4	CER.	0.22
UNIVERSAL	5634	Universal Repl.A&SN Brkt.	74	BK/RED	3393	.7S&3S	4	CER.	0.15
UNIVERSAL	5634D	Universal Repl.A&SN Brkt.	74	BK/RED	3393DS	.7D&3S	4	CER.	0.15
THOMSON									
STC-1000D	5645D	STC-1000D	77	BLACK	2479D	.7D	5-7	CER.	0.50
TOSHIBA									
	5447		54	IVORY	2829D	.7S	8-10	CER.	0.50
C-56M	6067D	C-55M C-57M	81	BK/SILVER	PM2296DE	.7D	2-3	MAG.	3.5MV
TRUETONE (WESTERN AUTO)									
4DC6985	5202	VARCO CN-72	45	BLACK	3332DS	.7S&3S	8	XTAL	0.90
4DC5474	149D	4DC5454,4DC5460	13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
20-1062	5363D	BSR SC5H	37	BLACK	2424DS	.7D&3S	6-8	CER.	0.59
VARCO (VACO)									
CN-72	5202		45	BLACK	3332DS	.7S&3S	8	XTAL.	0.90
TN-4 SERIES	5126D	TN-4A -4AD 4B -4BD -5	36	BLACK	3332DS	.7D&3S	4	CER.	0.40
		MORSE 221 REPL.EVG #5208,5209,5210&D SERIES							
TN8T,-8U	5126D	AIRLINE 60-161	36	BLACK	3332DS	.7D&3S	6-8	CER.	0.90
SN-H44	5246		48	BK/GRAY	3009	.7S	8	XTAL.	2.70

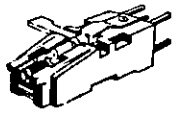

71

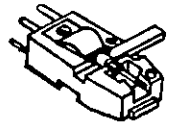

74

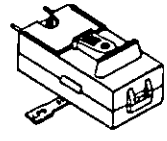

77

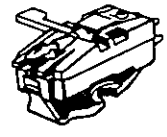

54

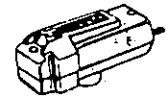

81


45


13


37

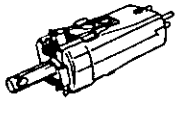

36

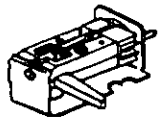

48

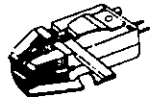
MFG NUMBER	EVG NUMBER	REPLACEMENT NOTES	FIG	BODY COLOR	EVG NEEDLE NUMBER	ORIGINAL TIP SIZE (MIL)	STYLUS FORCE (GRAMS)	ELE-MENT	OUT-PUT (VOLTS)
VM									
18973	143D	21400	11	BLACK	3009Dx2	.7D&3S	8	XTAL.	2.00
	26D	MOTOROLA,SEARS	2	GRAY	2604Dx2	.7D&3S	5	CER.	0.50
27269-M	149D		13	BLACK	2622DS	.7D&3S	2-4	CER.	0.45
43630-A,45037-B	5050D	AIRLINE 40177A	29	BLACK	2625DS	.7D&3S	2-5	CER.	0.12
6-21-V1	5117D	6-T3MD-V1,-V2	35	BRN/NICKEL	3393DS	.7D&3S	3	CER.	0.17
45140	5508D	V-54,V-130,-134,-136,-140	57	BK/SLVER	3393DS	-.7D&3S	4	CER.	0.20
Wards SEE MONTGOMERY WARD									
ZENITH									
142-163	5371D	142, -166	53	CLEAR	3454DS	.7D&3S	2-3	CER.	0.25
142-167	5188D	1970-71 Changers	42	CLEAR	3456DS	.7D&3S	1-3	CER.	0.25
142-168	5195D	1969-70 Changers	44	CLEAR	3454DS	.7D&3S	1-3	CER.	0.35
142-177	5271D	TETRAD 3T3MD	32	BLACK	3393DS	.7D&3S	2-5	CER.	0.22
142-185	5631D	TETRAD 1-TZ1D-Z2	73	BK/CHROME	3391DS	.7D&3S	5	CER.	0.59

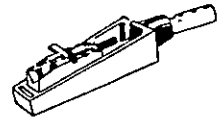
CARTRIDGES, MOUNTS, PLUGS & SOCKETS

PT-9	TURN-UNDER MOUNT FOR 13-13B-13D-13DB-78-78D-81-81B-81D-81DB-89-89B-89D-89DB-93-93D	91
PT-12	2 TETRAD MALE PLUGS TO A PACKAGE: FOR USE WITH TETRAD PLUG IN TYPE CARTRIDGES .030 PINS	92
PT-14	2 TETRAD MALE PLUGS WITH 23 INCH WIRES ATTACHED. FOR USE WITH TETRAD PLUG-TYPE CARTRIDGES	93
PT-17	TONE ARM WIRE KIT. FOR STEREO AND MONAURAL TONEARM CONNECTIONS	
PT-20	2 TETRAD MALE PLUGS TO A PACKAGE: FOR USE WITH UNIVERSAL LUGS .050 PINS	95
PT-21	BSR-SNAP-IN SHROUD.	96
PT-22	BSR UNIVERSAL BRACKETS.	97
PT-23	P-MOUNT BRACKET. ALLOWS P-MOUNT CARTRIDGE TO BE USED 1/2 INCH MOUNT APPLICATIONS	98


11

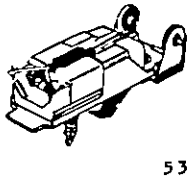

2

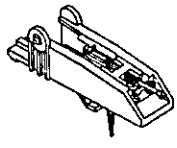

13

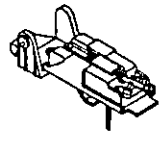

29

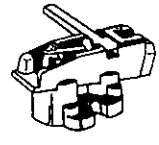
35

57

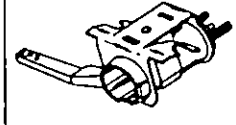

53


42

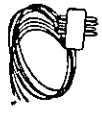

44


32

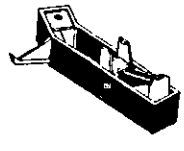
73

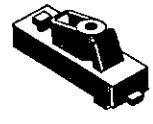

91

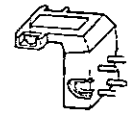
92


93

95

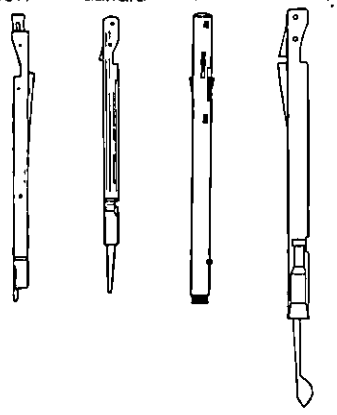

96


97


98

AUTOMATIC CENTERPOSTS & MANUAL SPINDLES

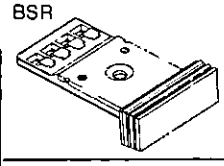
544CP BSR | **537CP** Garrard | **553CP** Dual | **564CP** Garrard



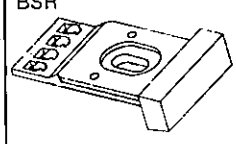
MANUFACTURER	PART NUMBER	FITS CHANGERS / MODELS	STOCK NO.
BSR (McDONALD) ZA-1 BSR	A107043, SP2.	A13, A14, A21, A22, A29, A34, A44, AA47, AA55/65, C109, C110; C116, C123 series, C129 series, C130, C141 series, C142 series, C154EI, C197, C198, C217, C218, C234, C248, C180, C181, MA55, UA47, UA55, UA65, UA70, UA75, UC3882/534, 300, 310, 310/X, 400, 500, 500A, 510 series, 600, 610 series, 2620, 4620W, 4700, 4800 series, 5500 series, 6500/X.	544CP
	A106174, A108748, B109219	A29, C116, C124R, C129, C129R, C130, C139, C141R, C142R, C150, C164, C167, C173, C185, P182, UA65, UA70, 210/X, 400, 500, 500A, 600, 710, 710/X, 810, 810/X, 2620, 4620W, 4800/X, 6500/X.	ZA-1
DUAL ZA-2 Dual	AW-3, 213895, 215470, 217813.	CS16, 1209, 1210 series, 1211, 1212, 1214, 1215 series, 1216, 1218, 1219, 1224, 1226, 1228, 1229 series, 1249.	553CP
	12F-246(MS-1), 200709.	CS-16, 601, 701, 1005, 1006 series, 1007 series, 1009, 1010 series, 1011, 1015 series, 1210 series, 1211, 1212, 1214, 1215 series, 1216, 1225.	ZA-2
GARRARD	59820, 59993, 70932.	AT-5 series, AT-50, AT-60, SLX, SLX2, SL55 series, SL65 series, X10, 30, 40 series, 50 series, 60 series, 1000, 1025, 2000, 2025 series, 3000 series, 2500, 4000.	537CP
ZA-7 Garrard	74177, 76011.	5-200, 5-300, 6-200 series, 6-300 series, 42C, 42M, 440 series.	564CP
	58484/005, 59830.	AT5 series, AT60, SLX, SLX2, SL55 series, SL65 series, SP20B, SP25, X10, 30, 40 series, 42B, 42C, 42M, 50 series, 60MKII, 62, 70, 440 series, 770M, 1000, 2000, 3000, 3500.	ZA-7
	72094.	SLX, SLX2, X10, X11, 20B, 30, 42C, 42M, 1025, 2025 series. 5100, 5200, 5300, 6-100C, 6-200C, 6-300C.	

CARTRIDGE MOUNTS & HEAD SHELLS

ZB-20 BSR

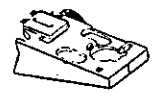


ZB-21 BSR

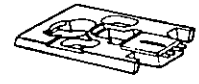


ZB-2 Dual

ZB-17 Dual

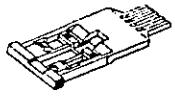


ZB-24 Dual

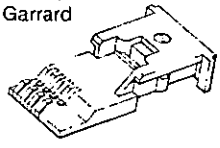


ZB-10 Garrard

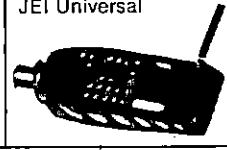
ZB-19 Garrard



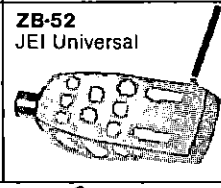
ZB-22 Garrard



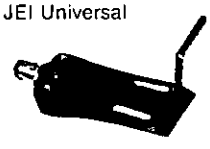
ZB-51 JEI Universal



ZB-52 JEI Universal

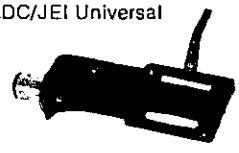


ZB-53 JEI Universal

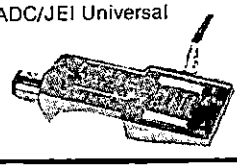


ZB-54 JEI Universal

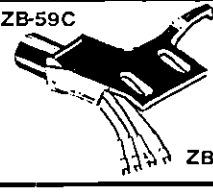
ZB-57 ADC/JEI Universal



ZB-58 ADC/JEI Universal



ZB-59C



short

Straight low mass tone arm.

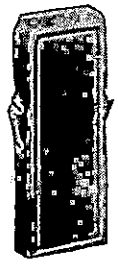
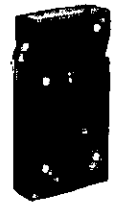
ZB-60C long

NOTE ON ZB-51 THRU ZB-58: These JEI Universal Heads and Shells are mechanically and electrically interchangeable. Differences are in styling, color, weight, etc.

MANUFACTURER	PART NUMBER	FITS CHANGERS / MODELS	STOCK NO.
BSR (McDonald)	H-2, A108963.	C165, MP-60, 310, 310/X, 510, 510/X, 610, 610/X, 710, 710/X, 810, 810/X.	ZB-20
	H-3, A109558, B109036.	C139	ZB-21
DUAL	CH-12, CH-14, TK-14, TK-24, 215430, 236242.	CS-16, HS-40, HS-41, HS-42, KA-20, KA-25, 601, 701, 704, 721 1007A, 1008A, 1209, 1210 series, 1211, 1212, 1214 series, 1215, 1216, 1219, 1225, 1226, 1229 series.	ZB-24
	CH-19, TK-12, 12K-U280, 213836.	1009F, 1009SK, 1009SK2, 1010A, 1010S, 1015 series, 1016, 1019.	ZB-2
	CH-22, TK-15, 223036.	1209, 1212, 1215, 1216, 1218, 1228.	ZB-17
GARRARD	C2, C2A, 73347, 73361, 73510/001.	S155B, SL65B, SL72, SL72B, SL95, SL95B, SP20B, 40B.	ZB-10
	C3, C3A, C3S, 75149, 75150, 75763/100, 75763/002, 759003/001.	Zero 92, Zero 100 Series, Zero 2000B, 82, 86SB.	ZB-19
	C4, 76814, 77620/001.	62, 70, 440, 770, 770M.	ZB-22
IMPORTS	Aiwa, Audio Technica, CEC, Hitachi, Kenwood, Panasonic, Pioneer, Rotel, ansui, Sony, Tannoy/Micro, Technics, Toshiba, Trio, etc. For all imported changers & players using standard J.E.I. connection.		ZB-51 thru ZB-58

"45" RPM AUTOMATIC SPINDLE ADAPTORS

401S	420S	436SF	441SF	458SF	452SF	454SF	459SF	437SF
BSR	BSR	BSR	BSR	BSR	GARRARD	GARRARD	GARRARD	GE

462SF	438SF	449S	453SF	464SF	455SF	440SF	435SF	
								
GLENBURN	MAESTRO	MAGNAVOX	MAGNAVOX	MAGNAVOX	PANASONIC (NATIONAL)	VM	VM	

REPRESENTATIVE CROSS-REFERENCES

(See EVG Cross-Reference Guide for Complete, Detailed Cross-References)

MANUFACTURER	MODEL NUMBERS	STOCK NO.	HEIGHT*
BSR (McDonald)	SP6, UA12, UA14, UA16, UA24.	**401S**	**3⅞"**
	PS-661, PS-663, SP7, UA-15, UA-15A	**420S**	**3½"**
	A10, A11, A13, A14, A21, A22, A23, A24, A29, A30, AA47, C109, C110, C116, C117, C117A3, C123R/R1, C129R/R1, C141R/R1, C142/A3/R, C154E1, C180, C181, C197, C198, C217, C218, C234, C248, MA55, MA65, UA15SS/SST, UA25, UA30, UA35, UA47, UA55, UA70, UA75, UC3882/534, 300T, 310/X, 400, 500/A, 510, A/X, X, 600, 610A/X, 1500, 2500, 2620, 4620W, 4700, 4800, A/X, X, 5500T, 5500/X, 6500/X.	**436SF**	**2⅞"**
	A25, A26, A27, A28, A32, A37, AA45, AA50, C101, C107, C114, C115, C127/R, C136/R C138/R, 1000/X, 2000/X, 4500.	**441SF**	**2½"**
	C124/R, 210, 210/X.	**458SF**	**1⅞"**
GARRARD	AT6, AT60, SL55/B, SL65/B, SLX, SLX2, X10, 30, 40B, 40MKII, 50, 50MKII, 60MKII, 1000, 1025, 1100, 2000, 2025/T/TC, 2200, 3000, 3025, 3500, 4000.	**452SF**	**2¾"**
	5-200, 5-300, 6-100C, 6-200/C, 42M, 440, 2025TC.	**459SF**	**2¾"**
	CC10, F40, X11, 5-100.	**454SF**	**2½"**
GENERAL ELECTRIC	Most RD series, most console, portable and modular phonos.	**437SF**	**2¾"**
GLENBURN	AT100, 105, 110; G-10, 1100/A/S, 1120A, 2110, 2155A.	**462SF**	**2⅝"**
MAESTRO	52, 53, 54, 55, 361, 361-1 (Motorola, Zenith, etc.).	**438SF**	**2⅝"**
	M80.	**449S**	**2⅞"**
MAGNAVOX (Collaro)	C, CD, ED, K, P, PD series thru PD6608PE81; PD6800 series, PE series, W711, W812, W832.	**449S**	**2⅞"**
	P9281; PD6700 series; R228 thru R238 series; W623, W624, W801, W802, W821 series, W822, W823, 7P3651 thru 7P3924.	**453SF**	**2⅞"**
	60, 523724-1	**464SF**	**2¼"**
PANASONIC (National)	PS899, RD9090, SC-555/A, SC-666, SD-203, SE850/A, SE1519, SE2030, E2070, SE3080.	**436SF**	**2⅞"**
	PS925.	**441SF**	**2½"**
	SE840, SE970, SE1099/D/DC, SG634, SG635, SG650, SG674, SG675, SP-915, SP-916.	**455SF**	**2½"**
VM	1106 thru 1114, 1116 thru 1120-8, 1200 series, 1500 series.	**435SF**	**2¾"**
	L1272, 1105, 1455.	**440SF**	**4"**

Height to nearest ⅛" is given with adaptor standing on a flat board.

TETRAD

HOW TO IDENTIFY TETRAD CARTRIDGES

In 1977 there was a running production change in Tetrad cartridges. Simply, we describe those cartridges prior to the change as "Old Type" and the change as "New Type".

There are three identifying marks which constitute the Tetrad Part Number. It is of utmost importance that all three identifying marks be known to get the proper replacement. In some cases, an alternate Tetrad cartridge may be substituted and performance will be retained. However, in making substitutions, only use the alternative cartridges indicated in EVG literature and catalogs. Improper substitution could result in damage to the records and cause poor sound reproduction.

OLD TYPE

There are three basic type mounts of Tetrad cartridges:

A. One type is a standard mount (½" centers) which is fastened by two screws as shown below.

B. Type two is a snap-in. It clips into a fixed bracket mounted in the tone arm.

C. The third is custom designed heads. The cartridge is an integrated part of the head. In some instances, however, it is possible to pry out just the cartridge and replace it.

The illustrations and instructions below show how the Tetrad Part Number can be established:

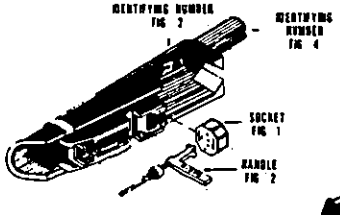
1. Determine socket color, cross reference to key and corresponding number, which indicates first identifying mark of cartridge. (Example: Gray Socket = 3. See Fig. 1).
2. Look for first 2 numbers and letter on needle handle. This gives you the second identifying mark. (Example: 41D. See Fig. 2). 78 on handle means 3.0 tip and is not used in identifying cartridge.
3. The third identifying marks are:
   a. On standard mount, snap-in mount, and some custom designed shrouds, there may be a single number or letter, or a combination of letters and numbers, on the side of the cartridge or back of the bracket. (Examples: SN-1; 78-4; see standard and snap-in mounts, Fig. 3).
   b. On custom designed heads, there are letter and number(s) underneath the head behind the wire plug (Example: P-8, see Fig. 3), or on the tang, which is the part inserted into the tone arm (see Fig. 4).

The extractions of the above examples give the complete cartridge which is 3-41D-P8.

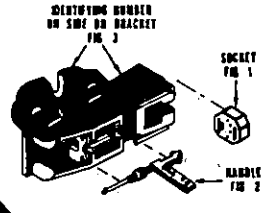
SOCKET COLOR CODE KEY

Black (Stereo) – 1	Yellow (Stereo) – 5
Blue (Stereo) – 2	Red (Stereo) – 6
Gray (Stereo) – 3	Purple (Stereo) – 8
Green (Monaural) – 4	Orange (Stereo) – 14

CUSTOM DESIGNED HEADS



STANDARD MOUNT



SNAP-IN MOUNT

NEW TYPE

There is one basic type of Tetrad cartridge, defined as the body, shown below. There are thee ways it is being used:

A. The body is fitted "as is" into an all-plastic BSR snap-in shroud. The body is replaceable.

B. The body is bonded into an inline bracket which is a BSR Universal Top Mount Bracket. The body and bracket are epoxied together, but may be pried apart.

C. The body is used in assorted plastic and die-cast Tetrad shrouds and is epoxied in.

The new Tetrad cartridge line has a new identification system with many fewer model numbers.

SOCKET COLOR (Numbering system not used in new cartridges, but shown for old to new comparisons.)			NEW BODY NUMBERS ("TC" stands for Tetrad Ceramic)
OLD	NEW		
1	Black	=	TC12H
2	Blue	=	TC8H, TC12M
3	Gray	=	TC11M
6	Red	=	TC6L

NEW NEEDLE NUMBERS:

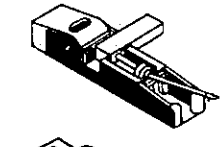
Double Tip: T1LD, T1LS, T2MD, T2MS, T3MD, T3MS, T5HD, T5HS.
Single Tip: T10LD, T10LS, T20MD, T20MS, T30MD, T30MS, T50HD, T50HS.

When a numerical digit follows the body number (e.g., TC12H1), the number indicates the cartridge mounting which is:

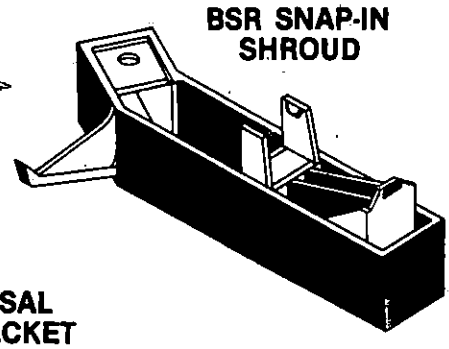
0 = no mounting, body only
1 = Universal BSR bracket
2, 3, 6 = some form of plastic or die-cast Tetrad shroud

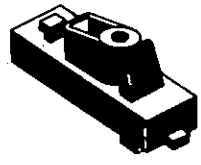
A complete example of identification is: TC8H1T5HD which would be a Blue Socket, Universal BSR Bracket and T5HD needle.

BASIC CARTRIDGE
(Body)



BSR SNAP-IN SHROUD



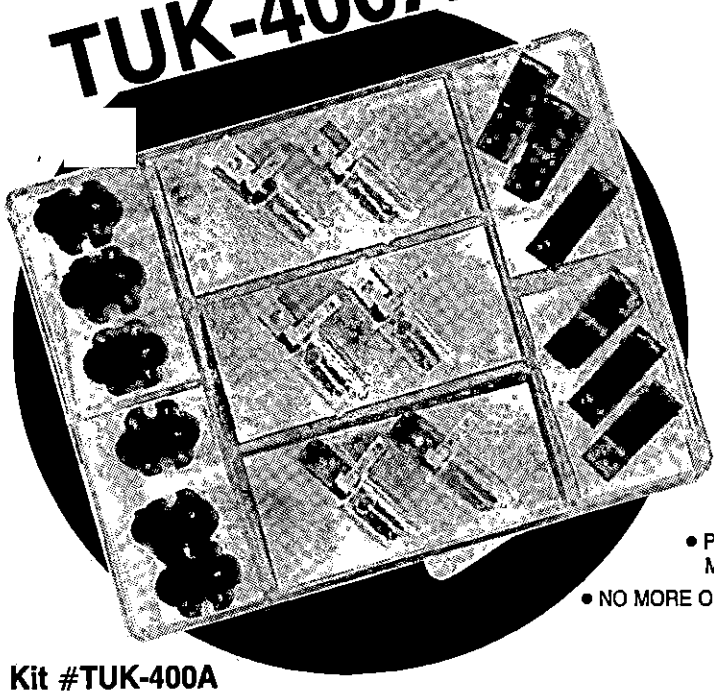


UNIVERSAL BSR BRACKET

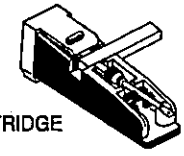
THE FIRST UNIVERSAL REPAIR KIT FOR TETRAD CARTRIDGES

3 TETRAD TYPE CARTRIDGES THAT "DO IT ALL" by REPLACING OVER 400 MODELS.

TUK-400A

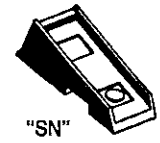


Kit #TUK-400A



CARTRIDGE

"A"



"SN"

KIT INCLUDES:
3 DIAMOND AND 3 SAPPHIRE CARTRIDGES
6 EACH OF "A" and "SN" BRACKETS

Stock # each Cartridge	Socket color	Replaces old Tetrad socket color
5632 5632D	BLUE	Pink • Green Black • Blue
5633 5633D	GRAY	Orange Gray
5634 5634D	RED	Yellow Red

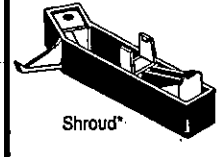
COVERS ALL APPLICATIONS
LOW, MID, AND HIGH OUTPUT CARTRIDGES

- POPOUT DEFECTIVE CARTRIDGE • REMOVE PAPER BACKING FROM THE NEW MODULE THEN PRESS INTO PLACE • *INSTRUCTIONS INCLUDED*
- NO MORE OF NOT KNOWING WHAT TO USE OR HAVING TO WAIT FOR IT TO BE ORDERED

KEEP YOUR KIT COMPLETE
REPLACEMENT CARTRIDGES FOR YOUR KIT ARE AVAILABLE
COMPLETE WITH "A" AND "SN" BRACKETS

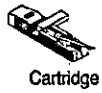
UNIVERSAL DIAMOND CARTRIDGE And ACCESSORY KIT

COMPLETE REPLACEMENT PACKAGE FOR ALL TETRAD APPLICATIONS.

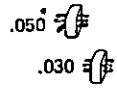


Shroud*

BSR Universal Inline Bracket



Cartridge



Plugs

Plug with Harness

Zip Strips

Kit Includes:
4 Diamond Cartridges
2 Universal Brackets
2 BSR Shroud
2 .050 Universal Plug
2 .030 Plug
2 .030 Plug Wired Harness
4 Zip Strips

Stock#	Socket Color	Application
5632D	BLUE	Mid to High Output
5633D	GREY	Low to Mid Output

The NEW complete kit. Contains ALL hardware for every mounting application.

The UNIQUE .050 Universal plug* used with a body and any bracket enables you to make a general replacement Tetrad cartridge for thousands of other types.

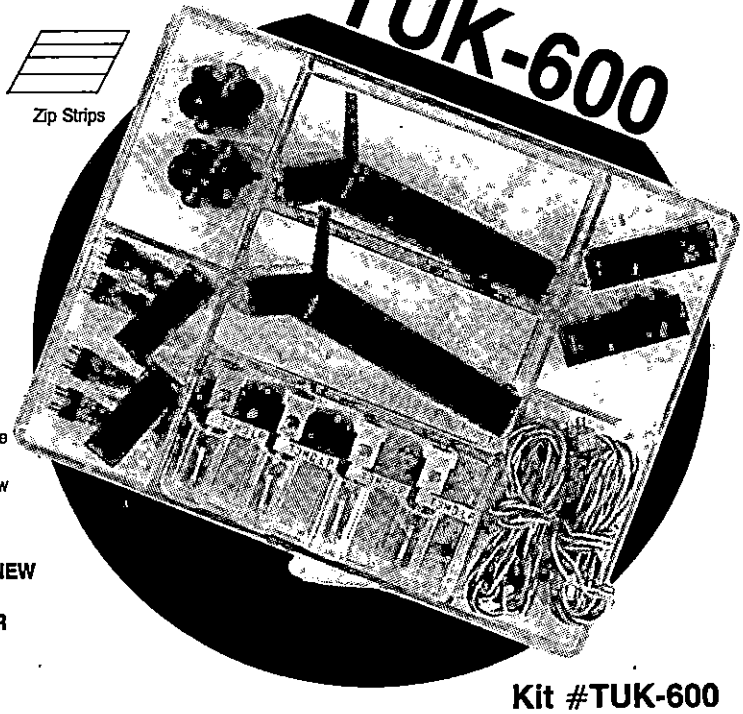
The clasps in the BSR shroud* are prone to breakage when removing the body. With a new shroud, you can make a cartridge as you need it.

* .050 plug and shroud furnished only in this kit.

- **POPOUT DEFECTIVE CARTRIDGES. APPLY ZIP STRIP IF NEEDED TO NEW BODY THEN PRESS INTO PLACE. INSTRUCTIONS INCLUDED.**
- **NO MORE OF NOT KNOWING WHAT TO USE OR HAVING TO WAIT FOR SPECIAL ORDERS.**

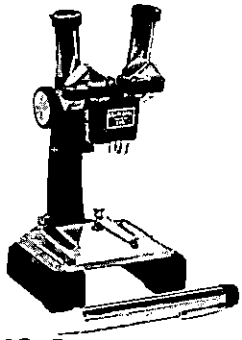
KEEP YOUR KIT COMPLETE
REPLACEMENT CARTRIDGES FOR YOUR KIT ARE AVAILABLE

TUK-600

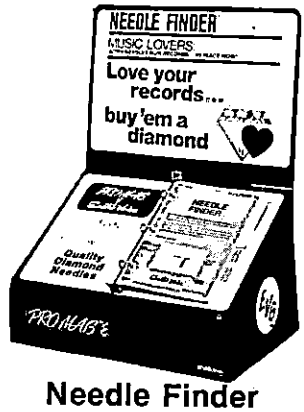


Kit #TUK-600

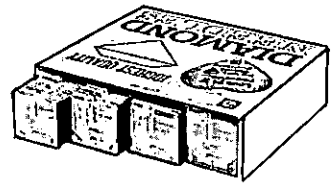
EVG Merchandising Aids



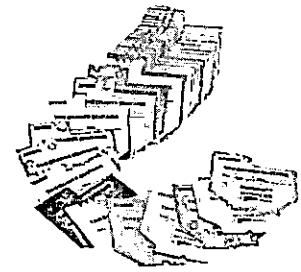
EVG Stereoscope
Accurate check for worn needles (less batteries)
#75000



Needle Finder
#88500



Needle Dex® Cabinet
Spring-loaded drawers with inventory control cards
#79657



Needle Dex® Cards
For inventory control, approx. 100 prenumbered & blank cards used in 79657
#88511

Dealer Cartridge Assortments

Dealer Cartridge Bin
#76017

Mr. Dealer:

Your distributor can put you into the highly profitable business of selling EVG phonograph replacement cartridges.

Get your EVG cartridge assortment now! 24 or 50 popular units – quick turnover replacement cartridges. Save time and money by having the needed replacement cartridges in stock when you get calls for them.

EVG Cartridges Are:

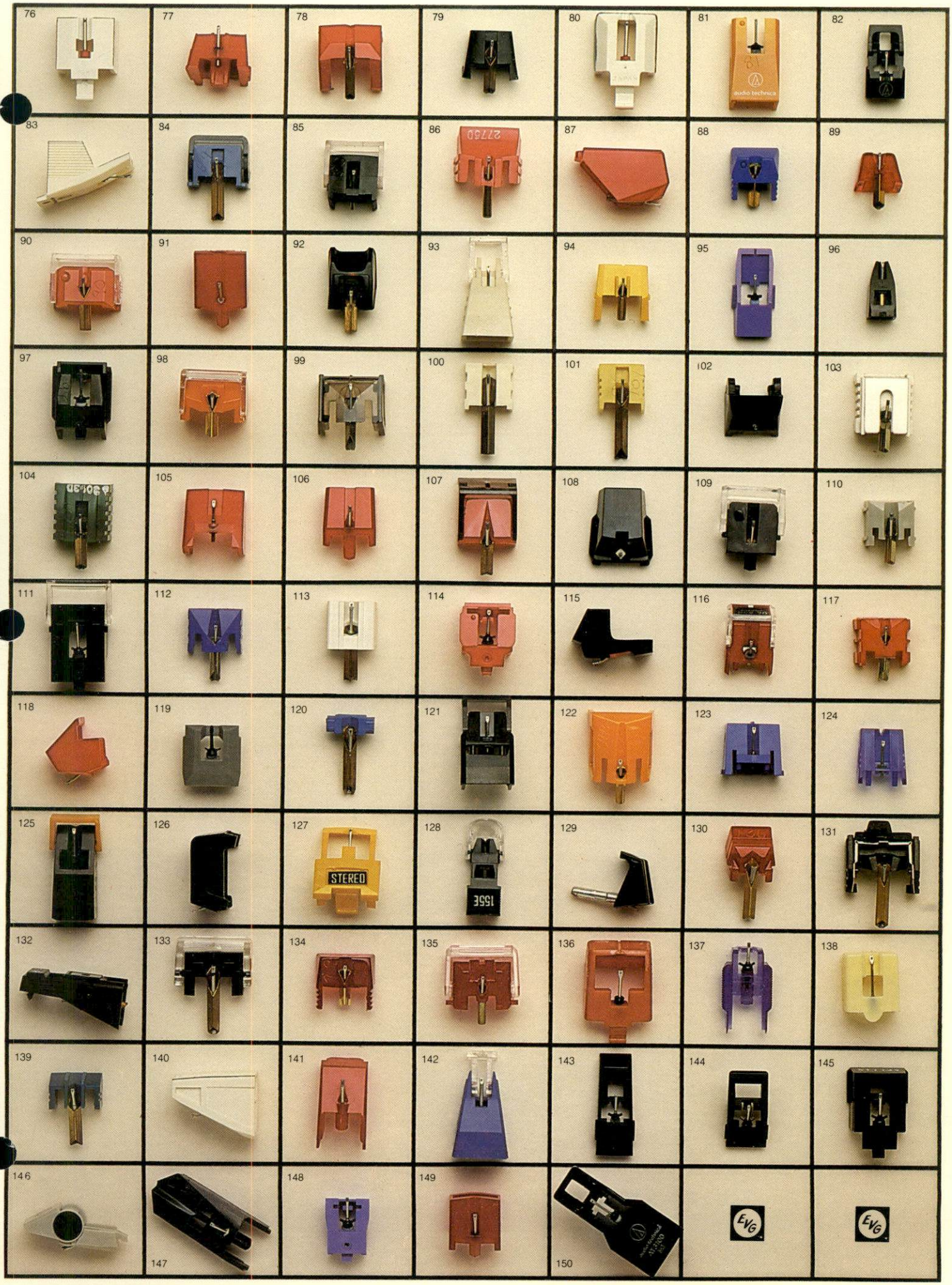
- Highest Quality
- Original Replacements
- Nationally Advertised
- Consumer Accepted
- Listed in Sam's Photofacts
- The Choice of Phonograph Mfrs.

FREE with each Assortment

- **Stock Cabine for Wall or Counter**
- **EVG Cartridge Catalog**

POPULAR BELTS FOR AUTOMATIC & MANUAL PHONO TURNTABLES

MANUFACTURER	MODEL	PART NUMBER	STOCK NUMBER
Acoustic Research	AR-XA, AR-XA91, AR-XB, AR-XB91.	–	1407-212
BIC	920, 940, 960, 980, 981, 1000.	A7, A8 & 37-130-01	1407-89
BSR	Accutrac 4000, C-186, C-187, C--205/4P, C-206, P183, P184, P200, 20B, 20BP, 20BPX,100BAX, 200BA, 200BAX, 350, 400, 450, 500, 550.	A110684-A	1407-83
Bang & Olufsen	Beogram 4002	2732018	1407-194
CEC	FRB	–	1407-199
Craig	5102	–	1407-199
Dual	502, 510, 601, 1237, 1241, 1245, 1249.	234435	1407-220
Empire	208, 288, 298, 388, 398, 398A 488, 498, 598II, 698.	DB-208 DB-508	1407-194 1407-193
Elac	PC830, PC870.	17-507-1079	1407-186
Fisher	MT6010, MT6020, MT6030, MT6120.	TT4191-028	1407-199
Garrard	GT-10, GT-10/P, GT-15, GT-15/S, GT-25, GT-25/S, GT-35, GT-35/S, GT-55, GT-55/s, Zero 100SB, 86SB, 125SB. Zero 2000B, 990B.	76992 77080	1407-213 1410-76
Harman/Kardon (Rabco)	ST-6 ST-7	61430150 61430207	1407-212 1407-212
Hitachi	PS-10, PS-12, PS-14, PS-15.	4682441	1407-30
JVC	JL-A1, JL-A15, JL-A20, JL-F35, JL-P30. VL5	G3005 EG1050	1407-192 1407-199
Kenwood	KD-1033, KD-2033, KD-2055, KD-3022, KD-3033, KD-3055, KP-1022, KP-3022.	D16-0037-13	1407-222
KLH	M-60	–	1407-192
Lenco	L-80, L-82, L-84, L-85, L-90, L-130, L-133, L-236.	070-0061	1407-75
Montgomery Ward	P183, P184.	A110684-A	1407-83
Panasonic	RD-3600, SL-20, SL-23, SL230A(M), SL230(M), SL230(MC), SL235A(M), SL235(M), SL235(MC).	SFGB029-1, SFGB321-1	1407-222
J.C. Penney	1741 (853-0586), 1770 (853-0685), 1906 (853-0669). 6402 (853-1584)	200180077 A110684-A	1407-49 1407-83
Phillips	GA202 GA209S, GA212, GA222. GA427	4H35830133 4H35830182 4H35830131	1407-223 1407-221 1407-166
Pioneer	PL-A45D, PL12D, PL12DII, PL15DIII, PL112D, PL115D. PL50	KEB004 E31-700	1407-192 1407-194
Radio Shack	LAB-100 LAB-300	B6317 B6331	1407-83 1407-199
Rek-O-Kut	RBL, RBS.	–	1407-197
Rotel	RP100, RP1000	–	1407-199
Sansui	FR-1080, FR-3080. SR-212 SR-313 SR-1050, SR-2050. SR-222, SR-323.	6032160 6032120 6032140 6032080 6032170	1407-199 1407-199 1407-199 1407-199 1407-192
Sanyo	TP-80S TP-80SA, TP-80SB, TP-600SA, TP-700SA. TP-747	134-2-6302-10200 134-2-6302-10400 134-2-6302-10700	1407-199 1407-199 1407-199
Thorens	CB908, TD124. TD125AB, TD145C, TD160C, TD165C.	– TD-574	1407-200 1407-200
Toshiba	SR40, SR40E, SR50, SR80, SR305	20728016	1407-213
Yamaha	FRB YP450, YP600. YP701	– CB073580 CB061860	1407-199 1407-212 1407-194


76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
STEREO
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150

$10.00

DISTRIBUTED BY:

EVG, inc.

1 Lee Place
Freeport, New York 11520
(516) 378-0440
Telex 6971147 EVGFRPRT